223 PAGES OF EXPERT PHOTO ADVICE

Future

Teach yourself Photoshop

The complete guide to CS and CC for photographers



- ✔ Make perfect pictures quickly and easily
- ✔ Professional tools and techniques revealed
- ✔ Every processing step explained by experts

A Photomasterclass from the makers of Digital Camera

Future

PMZ34 2014

Welcome to your digital edition

Three easy ways to read this digital book...

Double click to zoom

When zoomed in, drag to pan

Click the page to turn over

Teach yourself Photoshop



Taking the picture is only the beginning of the photography process. However powerful your camera, and however much experience you have, your images will always benefit from at least some editing. There are many applications dedicated to photo processing, and the best one on the market by a country mile is Photoshop CC. Of course, not everyone can afford the subscription cost of Adobe's premier package, so the vast majority of the tutorials in this book work just as well in Photoshop CS and even Photoshop Elements.

The book is divided into 11 chapters, starting with introductions to Adobe Bridge, Camera Raw and the main Photoshop editor. We then work our way through fundamental Photoshop concepts and classic editing techniques including layers, masks, selections, composites and much, much more – everything you need to make the best prints from your photos. Our final chapter offers in-depth guides to the Photoshop tools most users use every day, including the healing, selection, distortion, dodging, and transforming tools.

We hope you enjoy learning with this guide. And because you bought this book we'd also like to offer you a 40% discount off our extended 50-part *Teach yourself Photoshop* interactive DVD training course. To claim the discount, simply use the voucher code **MFMDVD** at **www.myfavouritemagazines.co.uk/photo**

George Cairns, Author



A **Photo***masterclass* from the makers of Digital Camera

Teach yourself Photoshop

Future Publishing Limited
30 Monmouth Street, Bath BA1 2BW, UK
www.digitalcameraworld.com
Tel: +44 (0)1225 442244

Author	George Cairns
Series Editor	Chris George chris.george@futurenet.com
Operations Editor	Steven Raynes
Art Editor	Amie Joachim
Design	Shona Cutt, Leanne O'Hara, Martin Parfitt
Disc Editor	Ali Jennings
Photography	Ben Brain, James Paterson

FUTURE PUBLISHING LIMITED

Head of Photography	Matt Pierce
Senior Editor	Paul Newman
Group Art Director	Steve Gotobed
Creative Director	Rob Abbott
Editorial Director	Jim Douglas

ADVERTISING

Senior Sales Executive Tel: +44 (0)1225 788186
Sasha McGregor sasha.mcgregor@futurenet.com

CIRCULATION & MARKETING

Trade Marketing Manager
Dan Foley daniel.foley@futurenet.com

PRINT & PRODUCTION

Production Co-ordinator
Marie Quilter marie.quilter@futurenet.com

LICENSING

Senior Licensing and Syndication Manager
Regina Erak regina.erak@futurenet.com
Phone: + 44 (0)1225 442244 Fax: + 44 (0)1225 732275

Printed in the UK by William Gibbons on behalf of Future.
Distributed in the UK by Seymour Distribution Ltd,
2 East Poultry Avenue, London EC1A 9PT.
Phone: + 44 (0)20 7429 4000

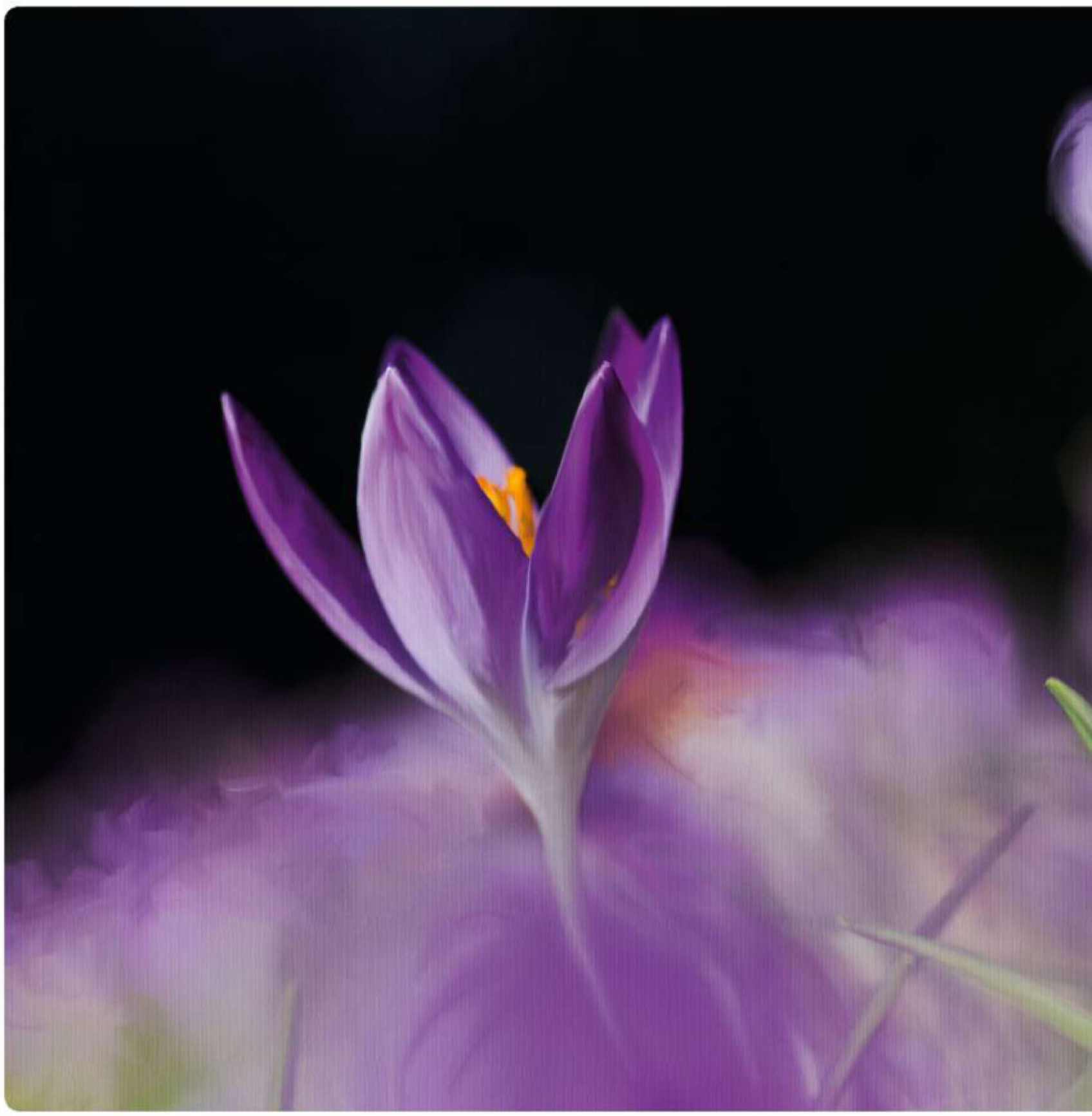
Future produces carefully targeted magazines, websites and events for people with a passion. Our portfolio includes more than 180 magazines, websites and events, and we export or license our publications to 90 countries around the world. Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR).

Chief executive Zillah Byng-Maddick
Non-executive chairman Peter Allen
Chief financial officer Simon Poulton
Tel: +44 (0) 1225 442244 www.futureplc.com

All information contained in this magazine is for informational purposes only and is, to the best of our knowledge, correct at the time of going to press. Future Publishing Limited cannot accept any responsibility for errors or inaccuracies that occur. Readers are advised to contact manufacturers and retailers direct with regard to pricing.

© Future Publishing Limited 2014. All rights reserved. No part of this magazine may be used or reproduced without the written permission of the publisher.









CHAPTER 1

Organise with Bridge 6

Introducing the Photoshop workspace 8
Introducing the Bridge workspace 10
Import your photos into Bridge 12
Add metadata and keywords to your images 14
Organise your images in Bridge 18

CHAPTER 2

Raw file processing 20

Introducing the Camera Raw editor 22
Improve contrast and colour in your raw files 24
Make selective raw adjustments 26
Do even more with Camera Raw 30
How to create and use presets 32

CHAPTER 3

Essential tools 34

Introducing the Photoshop Tools panel 36
Remove small flaws from your photos 38
Improve tones with the Dodge and Burn tools 42
Master Photoshop's Pen tool 44
Crop and resize your photos 48

CHAPTER 4

Get creative with layers 50

Introducing the Layers panel 52
Harness the power of adjustment layers 54
Be creative with Blend modes 56
Organise your layers efficiently 60
Add special effects using Layer Styles 62

CHAPTER 5

Making selections 64

Introducing Photoshop's selection tools 66
How to use the Lasso tools 68
Photoshop's intelligent selection tools 70
Editing selections in Quick Mask mode 72
Perfect your selections using Refine Edge 74

CHAPTER 6

Masks and montages 78

Introducing Photoshop layer masks 80
Combine selected parts of images 82
Make better masks with the Mask Properties panel 84
Create paint effects using layer masks 86
Make a simple composite image 88

CHAPTER 7

Photoshop filters 92

Apply editable filter effects 94
Edit JPEG images in Camera Raw 96
Improve images with controlled blur 98
Add creative effects to your photos with filters 100
Sharpen up your images 106



CHAPTER 8

Common photo fixes 108

Improve the colours in your photos 110
Double process a raw file to improve exposure 112
Create and apply Photoshop Actions 116
Keep the (high ISO) noise down! 118
Enhance your close-up portrait images 120

CHAPTER 9

Creative effects 124

Make stunning black and white photos 126
Split-tone a monochrome photo 128
Make a large panoramic image 130
Create a high dynamic range image 132
Use Photoshop's creative distortion tools 136
Correct unwanted lens distortion 140

CHAPTER 10

Advanced features 144

Introducing Photoshop's creative brush tips 146
Create elaborate titles and captions 150
Introducing the 3D workspace 154
Introducing the Motion workspace 158
Prepare your photos for print 162

CHAPTER 11

Tool School 166

Photoshop's healing tools 168
The Quick Selection and Magic Wand tools 172
The Dodge, Burn and Sponge tools 176
The cropping and resizing tools 180
The Blur, Sharpen and Smudge tools 184
The Color Range selection tool 188
Content-Aware technology 192
Automated Photoshop Actions 198
The powerful Refine Edge tool 202
The underrated Eraser tools 206
Correct unwanted lens distortion 210
Photoshop's Transform tools 214
Photoshop's animation tools 218

ORGANISE WITH BRIDGE





Organise with Bridge

Get started in Photoshop fast by learning the best ways to import and organise your images

08 Introducing the Photoshop workspace
Get to know all of Photoshop's key modules, and discover how they enable you to sort, edit and share your pictures

10 Introducing the Bridge workspace
Get to know the key areas of Bridge's photo-organising workspace and discover how to customise it to suit your needs

12 Import your photos into Bridge
Import images from your camera into Bridge, and organise and convert them in preparation for editing in Photoshop

14 Add metadata and keywords to your images
Discover how to protect your photos and make them easier to find in the future using embedded image metadata

18 Organise your images in Bridge
Use Bridge's asset management tools to help you find particular pictures quickly and easily using Collections

GET THE FILES HERE: http://bit.ly/PMZ34



Introducing the Photoshop workspace

Get to know all of Photoshop's key modules, and discover how they enable you to sort, edit and share your pictures

Since its debut in 1992, Photoshop has grown and developed to maintain its role as the world's most popular image-editing application. Indeed, the name Photoshop has become synonymous with the act of digitally processing a photograph. Although this book focuses on Photoshop CS and CC, we'll start by placing this most expensive and powerful version in context with the other versions of the Photoshop application so you can understand its strengths.

The cheapest version of the application is Photoshop Touch. This is designed to run on tablets such as the iPad, and it enables the user to edit and share images using a touch-sensitive interface. Next up is Photoshop Elements. As the name suggests, this is a cut-down version of Photoshop that's designed to help amateur photographers organise, edit and share their images. Elements lacks many of the more powerful and creative features found in Photoshop (such as the ability to make HDR composites or use realistic paint brushes), but it has most of the tone- and colour-tweaking tools a photographer might need, as well as many of the creative filters found in the more expensive Photoshop.

For professional photographers, there's Photoshop Lightroom. This application has the same raw image-editing tools that are found in Photoshop's Camera Raw, but it lacks the ability to edit in layers. Photoshop costs much more than the other versions of the application, but it enables you to do so much more, as you'll discover... ■

Photoshop Anatomy The workspace

Get to know the key sections in Photoshop's workspace

1 LAYERS PANEL

By editing in layers you can seamlessly combine different elements together, such as the studio-based model and the exterior street scene in this image. You can also make non-destructive changes to the colours and tones of an image using adjustment layers, as we'll demonstrate in chapter 4.

2 LAYER MASKS

Layer masks are one of the most powerful tools in Photoshop when it comes to making composites. The black section of the mask makes the corresponding pixels on the attached layer transparent. White pixels create solid areas. You can fine-tune the affect of a mask using a black or white brush.

3 TOOLS PANEL

Here you'll find a host of tools designed to enable you to edit or enhance your images. Selection tools such as the Magic Wand enable you to isolate a subject from the original background. Retouching tools such as the Clone Stamp tool enable you to hide unwanted objects.



4 MINI BRIDGE

Photoshop Elements has an organiser that enables you to add keywords to images or place them in albums. Photoshop Lightroom's Library module provides the same functions. Photoshop uses Bridge to help you browse and organise your assets. You can summon a condensed version of Bridge, called Mini Bridge, while working in Photoshop.

5 OPTIONS BAR

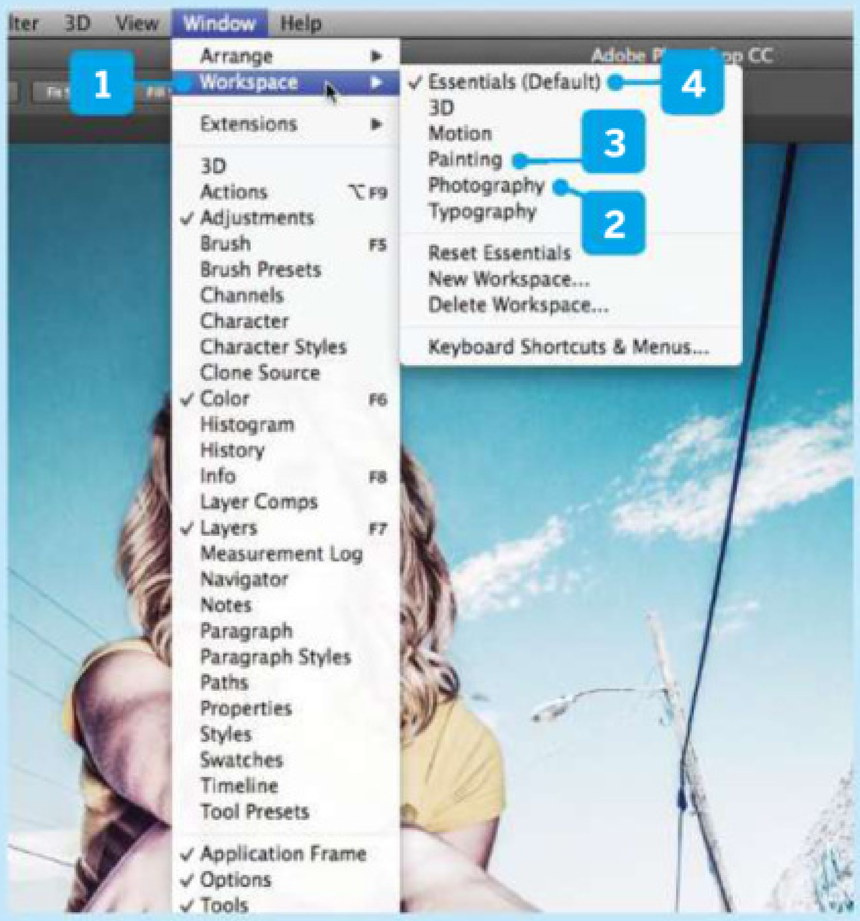
Once you choose a tool to work with, such as the Brush tool in this example, you'll be able to change the tool's attributes in the Options bar. Here you can change the opacity of the brush tip, its flow, the size, and the way it blends with the colours and tones on other layers using Blend modes. Different tools display different editable options.

6 MENU BAR

These drop-down menus enable you to use commands and access more tools and filters. You can also save your edited files in a variety of formats (such as .jpg for web galleries), share them via Behance (Adobe's online portfolio showcase) or choose to Browse in Bridge. You can even take JPEGs into the Camera Raw editor by using Filter>Camera Raw Filter.

Understanding... THE PHOTOSHOP WORKSPACE

You can access particular panels and commands from the main menu bar, but for a speedier workflow the Photoshop workspace **[1]** can be customised to suit your particular needs. If you're into photo fixing then choose Window>Workspace> Photography **[2]**. This opens relevant panels such as the Histogram, so you can analyse the spread of tones in an image to see if it's over-or under-exposed. By choosing Painting **[3]** you can display the Brush Preset picker and Color Swatch. Feel free to experiment with the different workspaces, because they are a great way to discover new features, and you can always go back to basics with the Essentials **[4]** option.



JPEG AND RAW WORKSPACES

As you'll see in this chapter's following pages, Bridge enables you to manage both your compressed JPEG format files and your uncompressed raw format files. To get the most from a raw file's colours and tones, it needs to be processed in the Camera Raw editor. This workspace is effectively a digital darkroom that enables you to develop your images. It has a range of selective colour and tonal adjustment tools, so you can process your pictures to perfection. You can then take the processed raw file into the standard Photoshop workspace to apply creative effects such as filters, text or paint-like brush strokes, for example, using layer masks to restrict your changes to selected areas.

GET THE FILES HERE: http://bit.ly/PMZ34

Introducing the Bridge workspace

Get to know the key areas of Bridge's photo-organising workspace and discover how to customise it to suit your needs

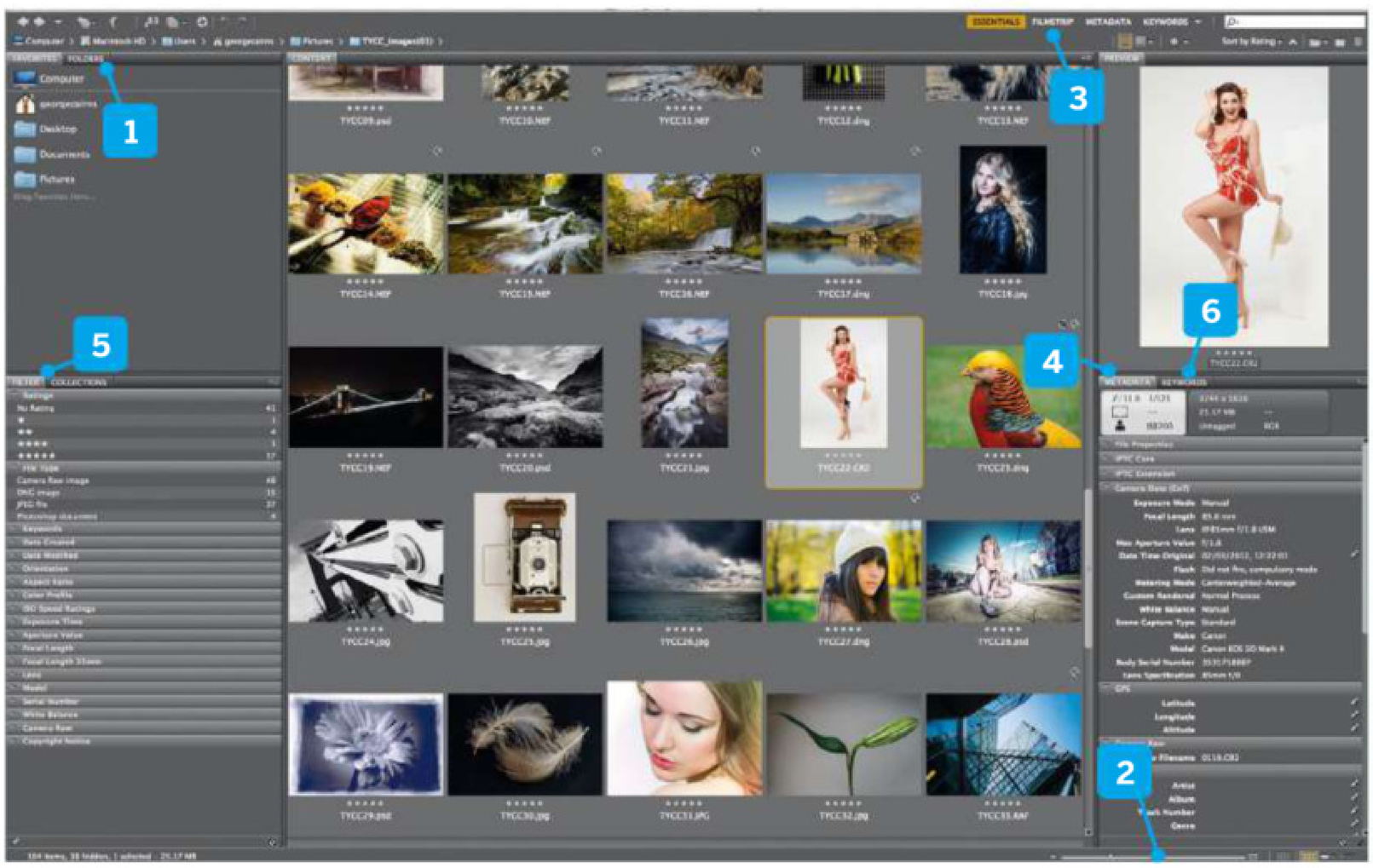
One of the biggest problems we face as digital photographers is our ever-growing collections of images. We may have thousands of photos scattered across hundreds of folders on our computers. These folders tend to display images according to when they were captured, so we have to rely on our memory of what was shot when as we search for a particular photo.

All versions of Photoshop attempt to deal with this asset management problem using similar tools. The Photoshop Elements Organizer allows you to add star ratings and keywords. Lightroom's Library module does a similar job. Photoshop CC and CS use a companion application called Bridge to help you sort the wheat from the chaff. If you access the full version of Photoshop as a download via the Creative Cloud service, you'll need to download the Bridge application separately.

Bridge is a powerful image browser that enables you to take control over your digital assets before exporting them to Photoshop for editing. On this spread we'll introduce you to the key features of Bridge, and demonstrate how to customise the workspace to display images in a more useful way. ■

Photoshop Anatomy The Bridge workspace

Get to know the key features of Adobe Bridge



1 FOLDERS

Click the Folders tab to browse to any folder of images stored on your PC. Drag your most commonly used folders into the Favorites panel.

2 THUMBNAILS

Bridge displays your images as thumbnails. You can use the slider at the bottom of the workspace to increase the thumbnail size.

3 WORKSPACES

These links enable you to change the way panels and images are displayed in Bridge. For example, the Filmstrip option gives you larger previews.

4 METADATA

This panel emulates the display on your digital SLR. It reads the metadata stored in the currently active thumbnail so that you can discover what shutter speed, ISO and aperture settings where used to capture the image. It also shows the metering modes.

5 FILTERS

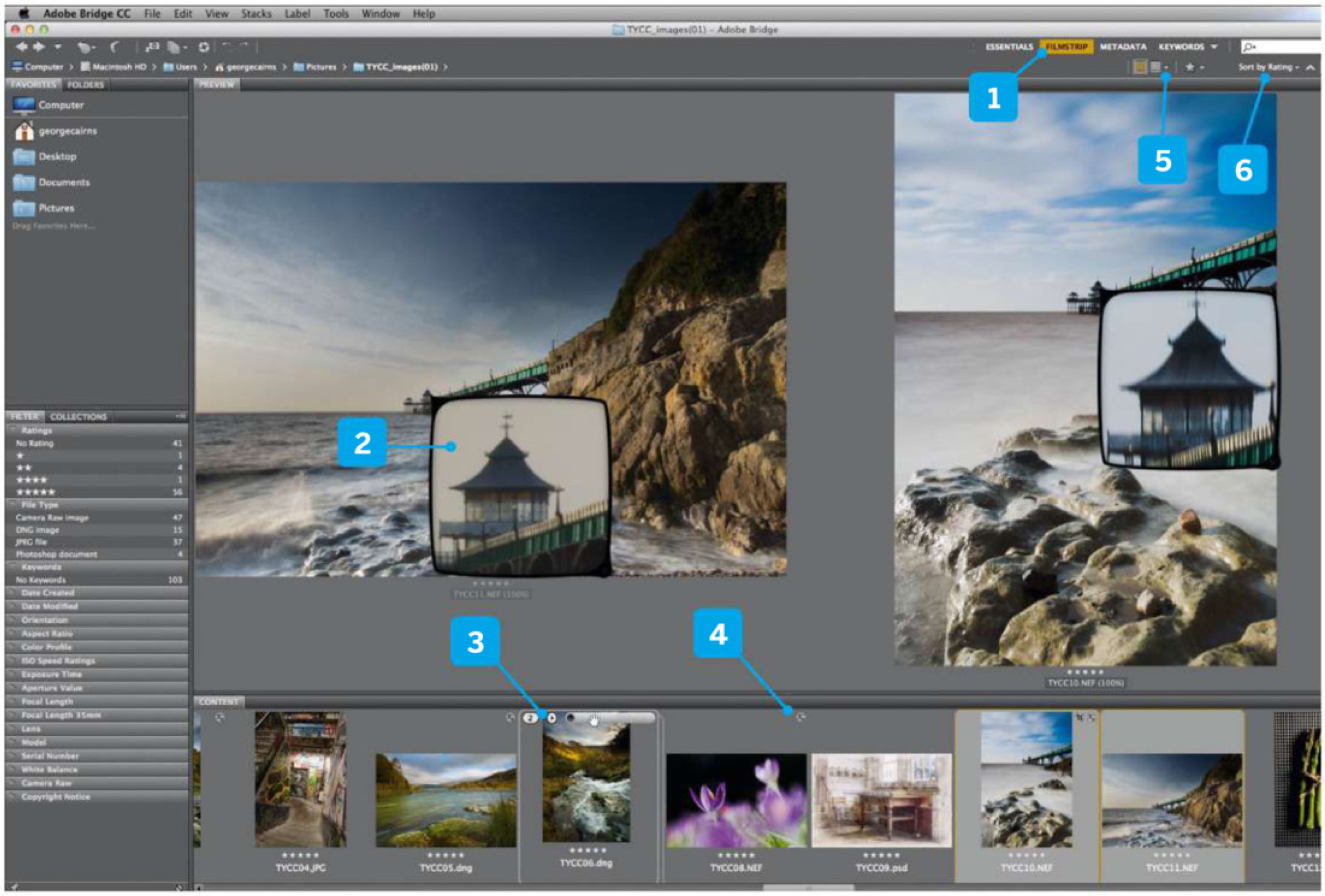
This panel enables you to present files that meet specific criteria, such as those with a specific star rating. You can also filter the files' metadata and discover images that were captured with a particular shutter speed setting, for example.

6 KEYWORDS

This panel enables you to quickly assign descriptive keywords to a photo. You can then use the Filter panel to display photos that contain a specific keyword. We'll demonstrate how to add and search for keywords later in this chapter.

Overview Customising Adobe Bridge

Take a closer look at your pictures using the Filmstrip view



1 FILMSTRIP

By clicking the Filmstrip workspace icon you display the selected thumbnail at a much larger size in the Preview window. Shift-click to select and compare multiple images, as we're doing in this image.

2 LOUPE VIEW

The easiest way to see if an image is in focus is by looking at it at 100% magnification. To do so, click the image to activate the Loupe view. Drag the loupe to examine the image. We can see that the image on the right is blurred.

3 STACKING

To stop similar-looking images from cluttering up the workspace, Shift-click to select them and then choose Stacks>Group As Stack. Click the play icon to see each thumbnail contained in a stack (or drag the scroll bar).

4 EDITED IMAGES

If the colours, sharpness or tones of a raw format photo have already been adjusted in Photoshop, you'll see this icon. You may also spot more specific icons that indicate that an image has been cropped, for example.

5 THUMBNAIL QUALITY

By default you browse a raw file's content by displaying the low-resolution thumbnail that was embedded with the file when it was captured. For a more accurate preview of colours and tones, click here and choose High Quality display. This will demand more processing power, however.

6 SORT BY

To see your files in chronological order (with the oldest ones appearing on the left of the Filmstrip), set this Sort By drop-down menu to Date Created. You can also use this option in the Essential workspace to display the oldest files at the top.

GET THE FILES HERE: http://bit.ly/PMZ34

Import your photos into Bridge

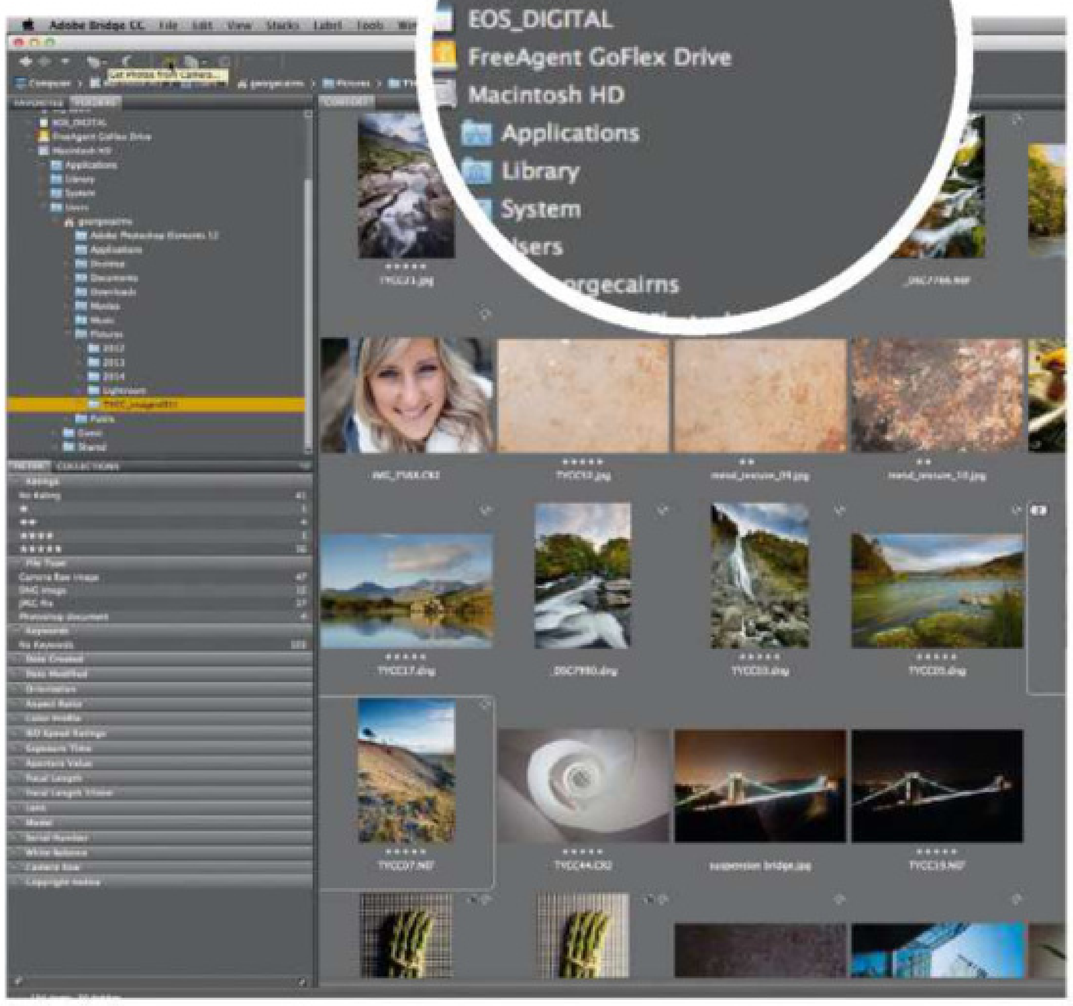
Import images from your camera into Bridge, then organise and convert them in preparation for editing in Photoshop

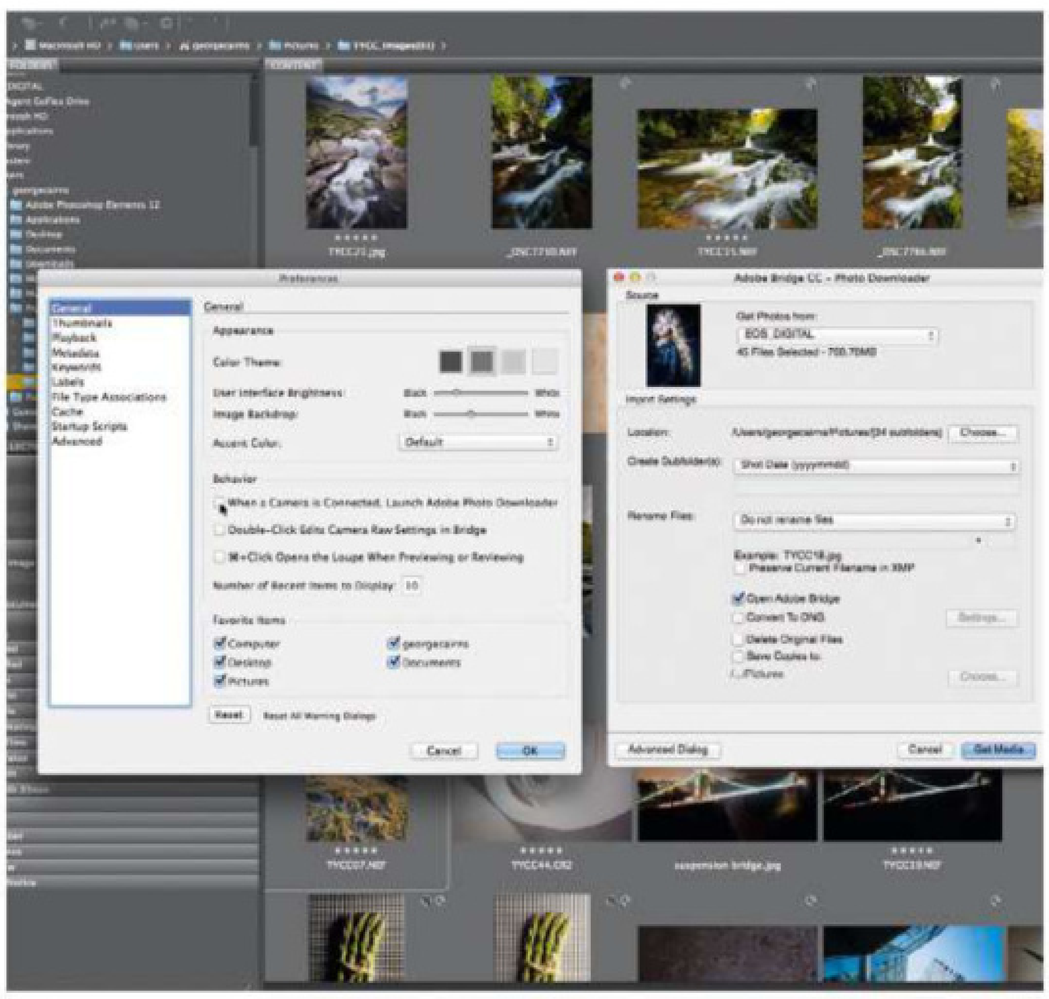
Bridge is a plugin that comes included with all versions of Photoshop. If you're not using Lightroom to import, organise and catalogue your images then Bridge is the perfect tool that fully integrates with Photoshop. Under the File drop-down menu on the main menu you can either open Bridge as a standalone window or use the Mini Bridge option as a panel within your Photoshop workspace. Whichever option you choose you can easily browse to your images and incorporate them into your workflow.

However, Bridge is so much more than a browser, you can also use it to add metadata, create catalogues, image stacks, apply star ratings and more. It also offers a host of other useful features too, such as the option to select multiple images and merge them.

CONVERT TO DNG

If you choose the Convert to DNG option, the Photo Downloader will convert third-party raw format files (such as Canon's CR2 or Nikon's NEF) into the Adobe Digital Negative format as it imports them. It will preserve the original raw format files and create a DNG copy in a separate folder. We recommend you keep the original raw files somewhere very safe.



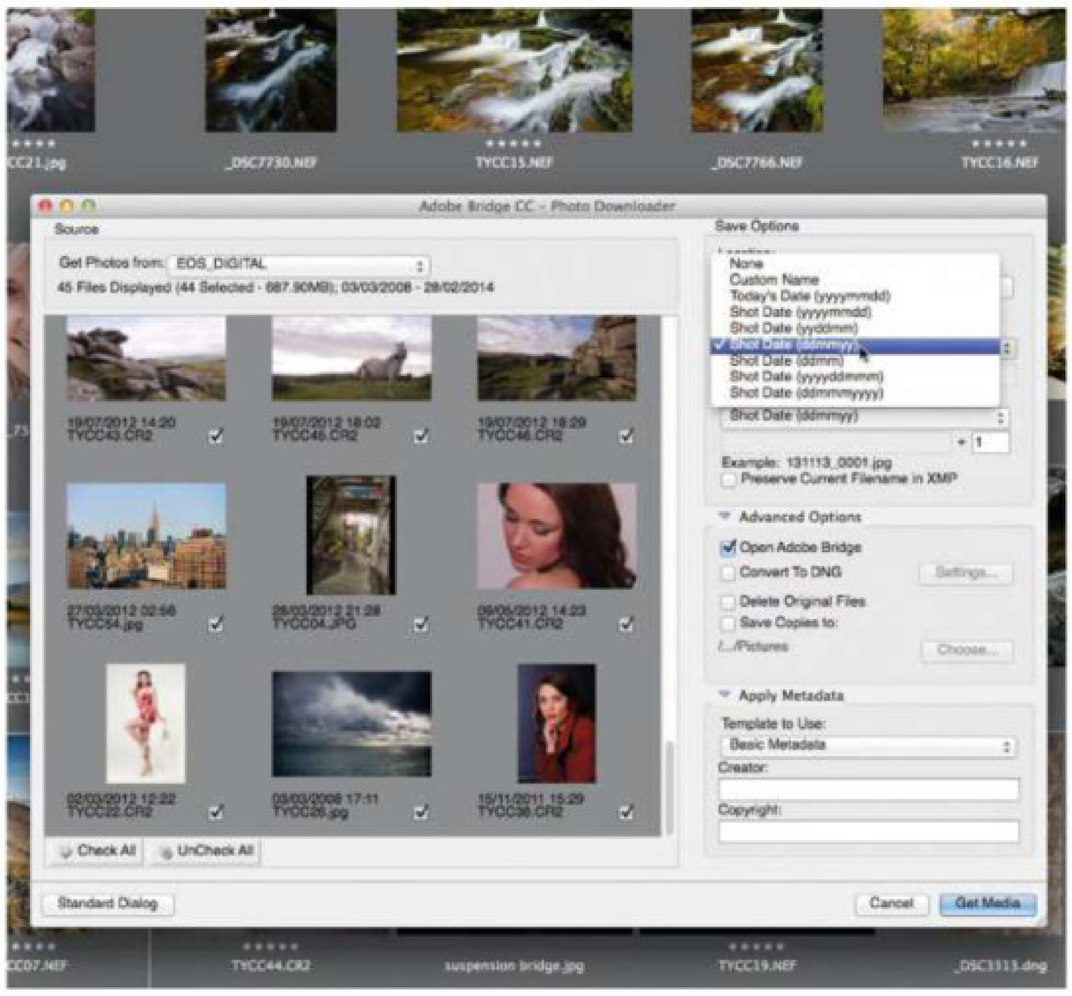


1 Attach your camera

On the previous pages we pointed out how to use Bridge to browse images that are already stored on your computer, courtesy of the Folders panel. This panel acts like any browser or finder window. You can also use Bridge to import and store images directly from an attached camera or memory card into folders on your PC. Kick off by attaching your camera via a USB cable, and then click the Import Photos from Camera icon in Bridge.

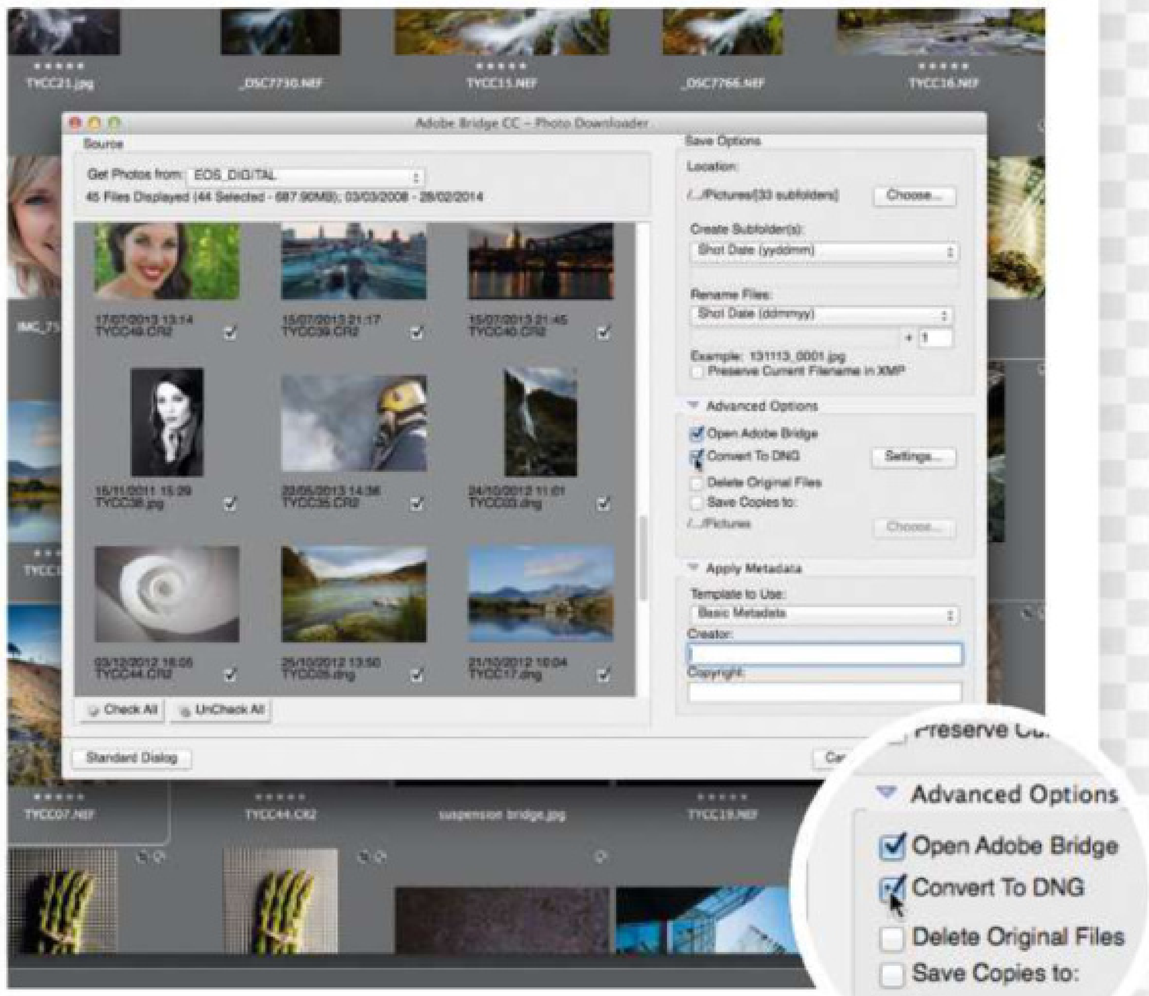
2 Launch Photo Downloader

A dialog will appear, inviting you to make the Photo Downloader launch automatically whenever a camera or card reader is attached. Click Yes or No as desired. You can always change this option later by choosing Adobe Bridge›Preferences›General and then tick or clear When Camera is Connected, Launch Adobe Photo Downloader. Whether you click Yes or No, the Photo Downloader window will appear.



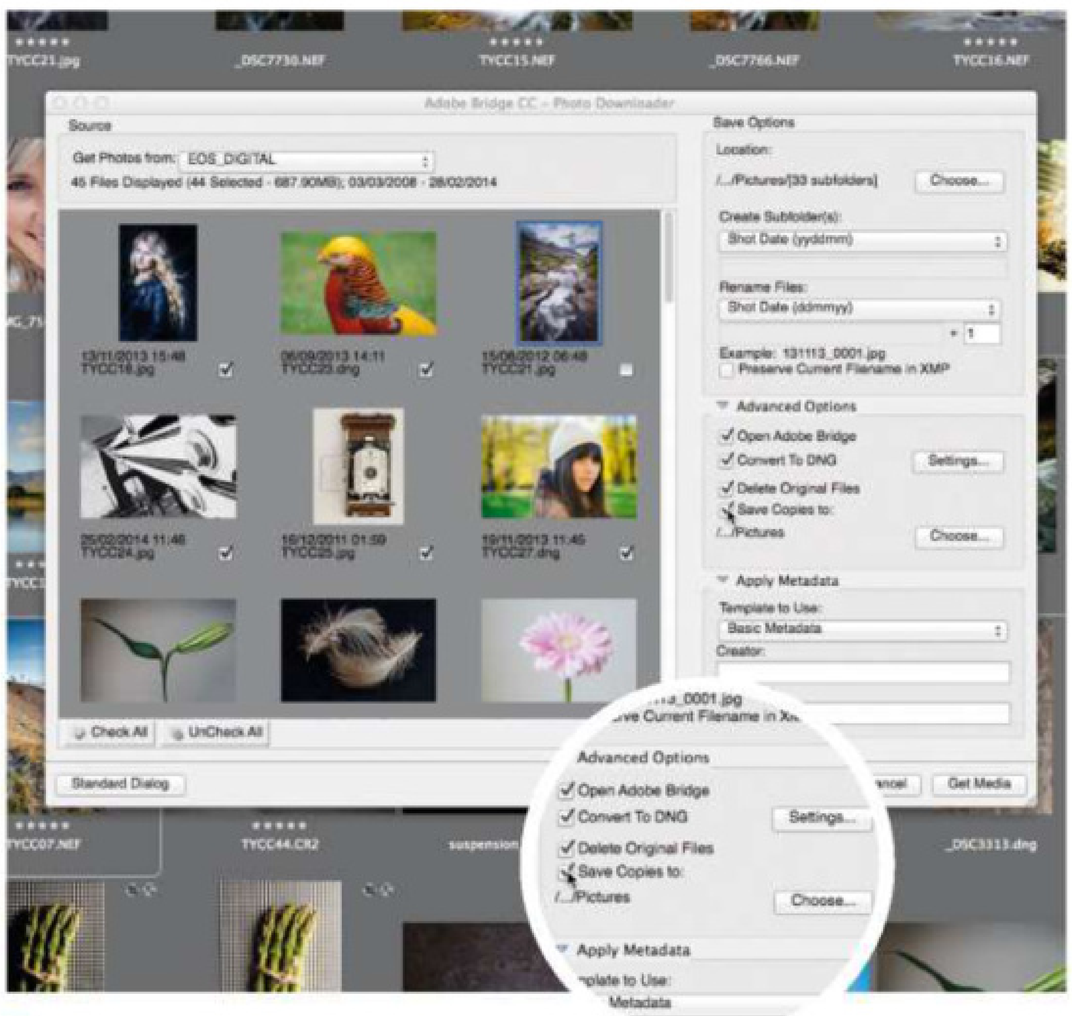
3 Choose a location and label

Click the Advanced Dialog button. Clear any thumbnails that you don't want to import. In the Save Options section, click Choose and browse to where you want to store the files, or leave it set to the default Pictures folder. Set the Create Subfolders drop-down menu to choose your preferred folder labelling format, such as Shot Date (ddmmyy). You can also rename the source files to include the Shot Date. They will then be numbered sequentially.



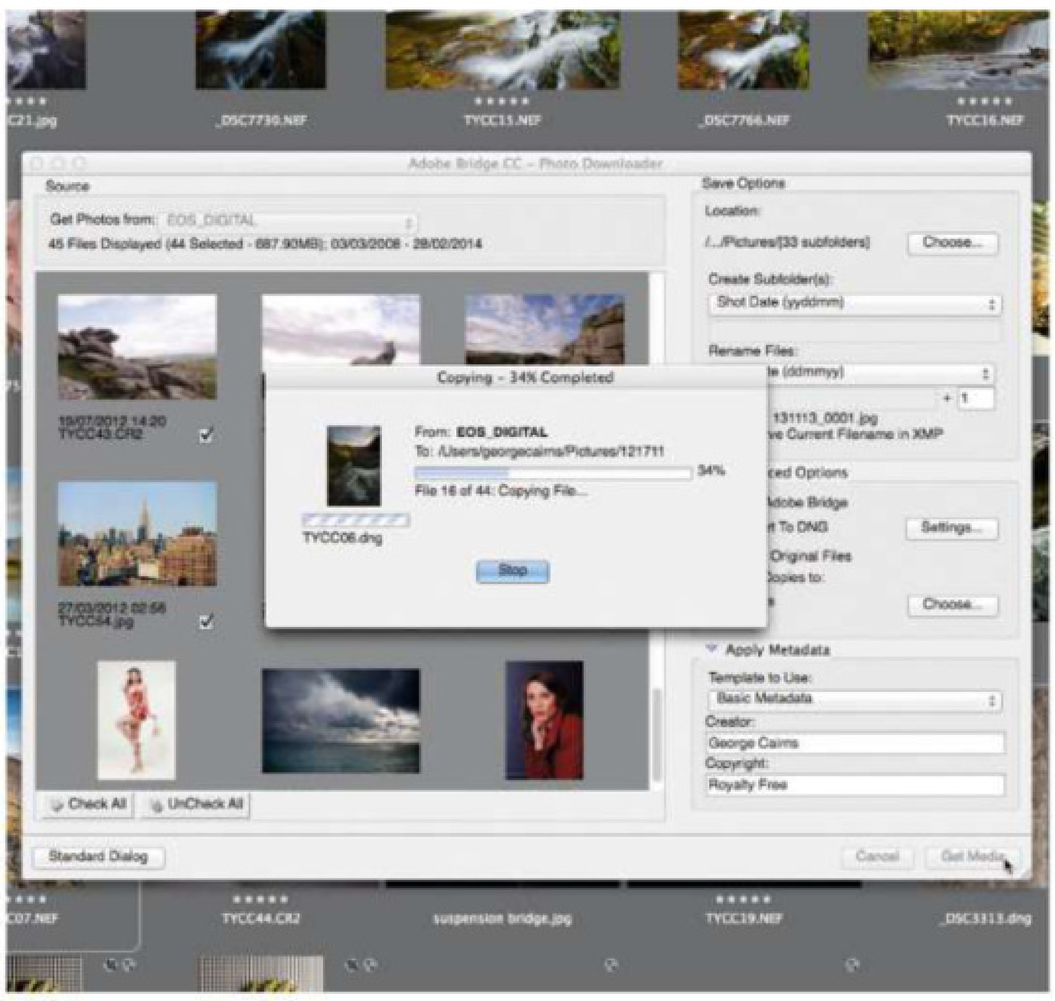
4 Convert to DNG

In the Advanced Options panel you can decide to convert raw files to the DNG format as they are imported. This can be useful if you're planning to share your raw files with other Photoshop users. Different camera manufacturers use different formats to create a raw version of an image and some of these can't be opened in older versions of Photoshop. Adobe's DNG format is also more compatible with third-party applications.



5 Advanced options

By default Adobe Bridge is set to open once you've imported the files. You can set the Photo Downloader to delete the original files on the memory card after they've been imported, so you can capture new images with the card without having to reformat it. You can also save copies of the imported files onto an external drive to create a backup of your photos. Click Choose to select your backup location.



6 Apply metadata

If you plan to share your images electronically, it makes sense to attach your details and the copyright status, such as Creative Commons or Royalty Free, to each photo as it's imported. This will save you the hassle of adding this information to individual files at a later date. We'll look at ways to add more information to metadata on the following pages. Click Get Media to import the selected files. ■

GET THE FILES HERE: http://bit.ly/PMZ34

Add metadata and keywords

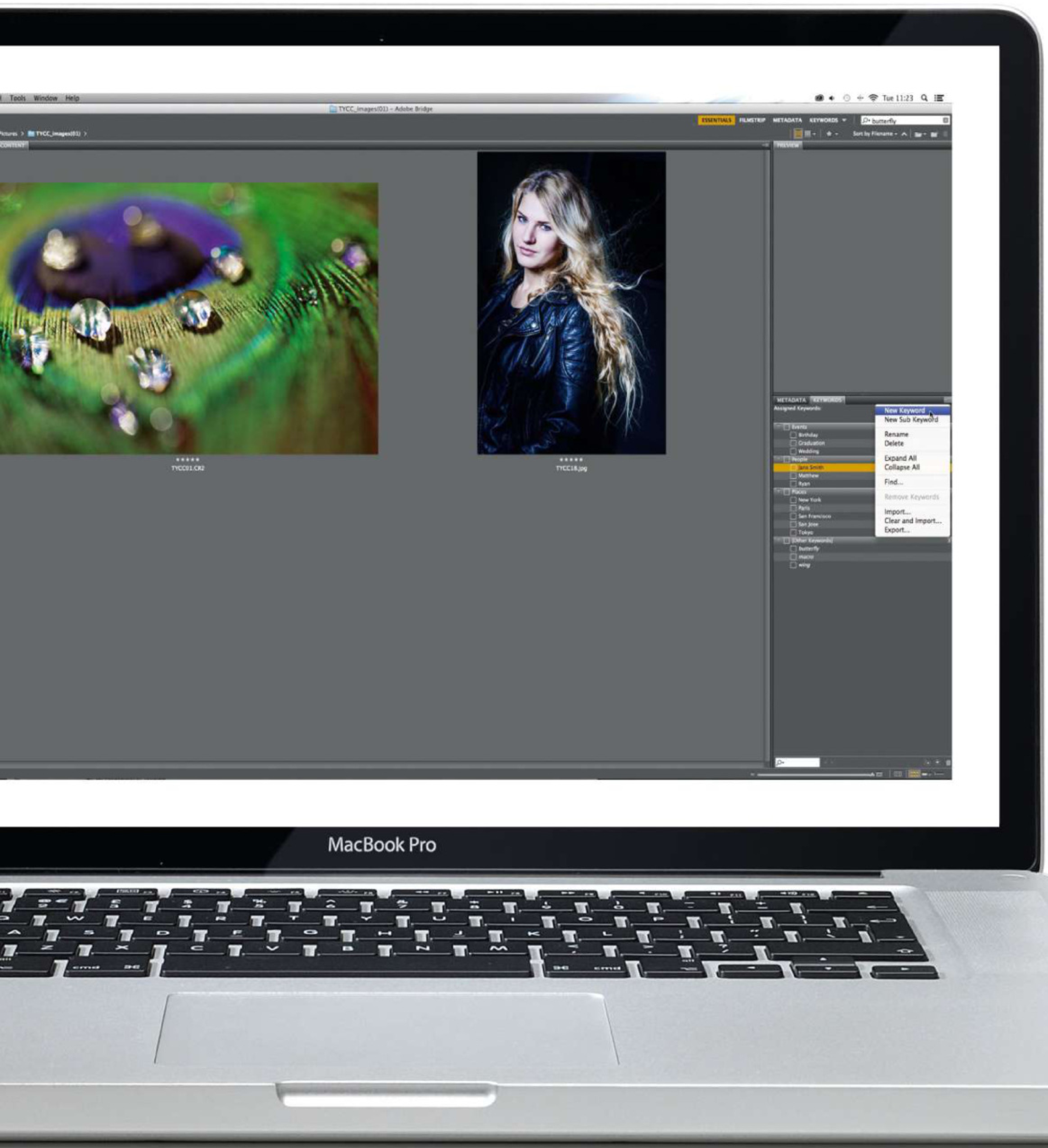
Discover how to protect your photos and make them easier to find in the future

At the end of the workflow on the previous spread we demonstrated how to quickly add your name and the copyright status to each file as it was imported to your computer by the Photo Downloader. This useful information is stored inside each file's metadata, so when the image is shared online or emailed to a client they will know who it belongs to.

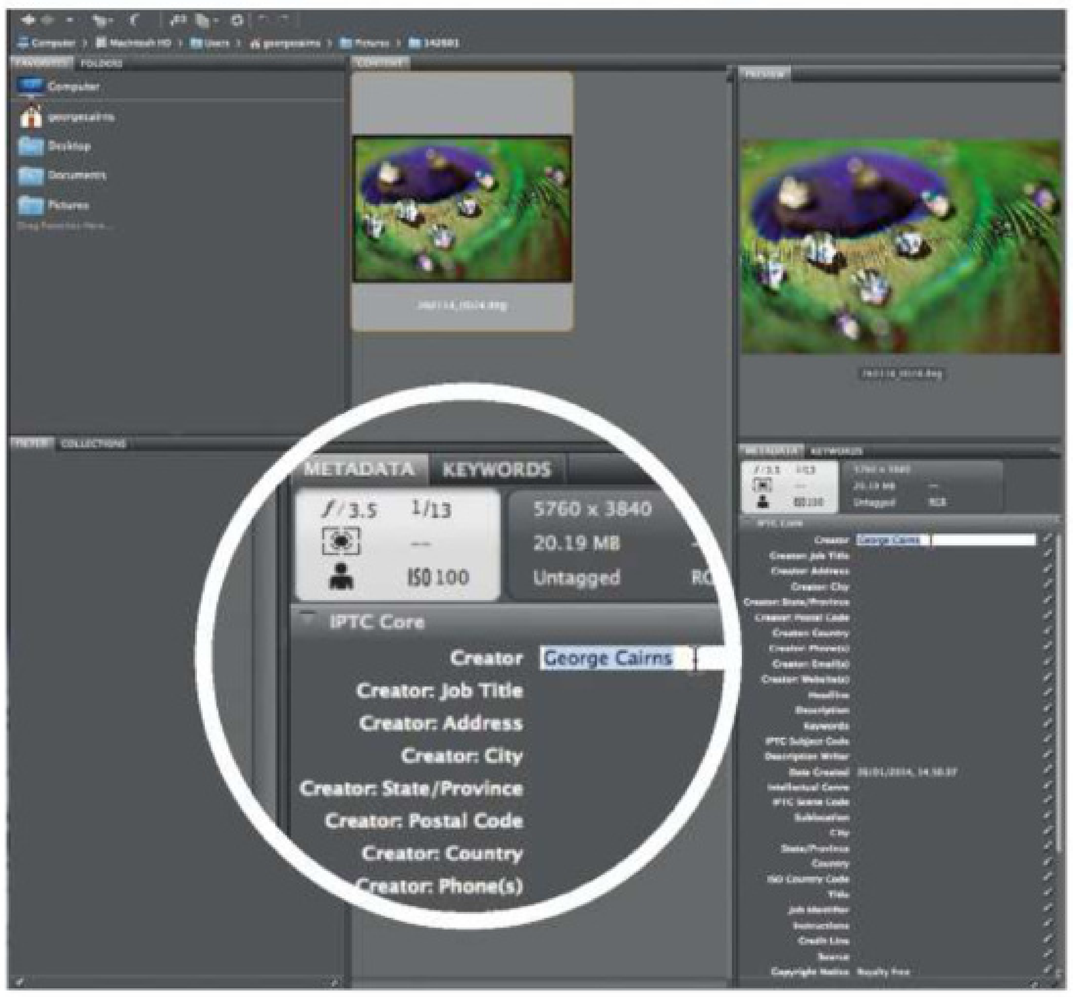
The Photo Downloader only enables you to add a limited amount of information to a batch of images, but once you're browsing your imported images in Bridge you can add much more useful data to them, such as your contact details and website address. This helps people contact you if they need to use the image, or at least credit you as its creator. In this walkthrough we'll demonstrate how to edit fields in the IPTC Core panel to assign your contact and copyright details to a file's metadata.

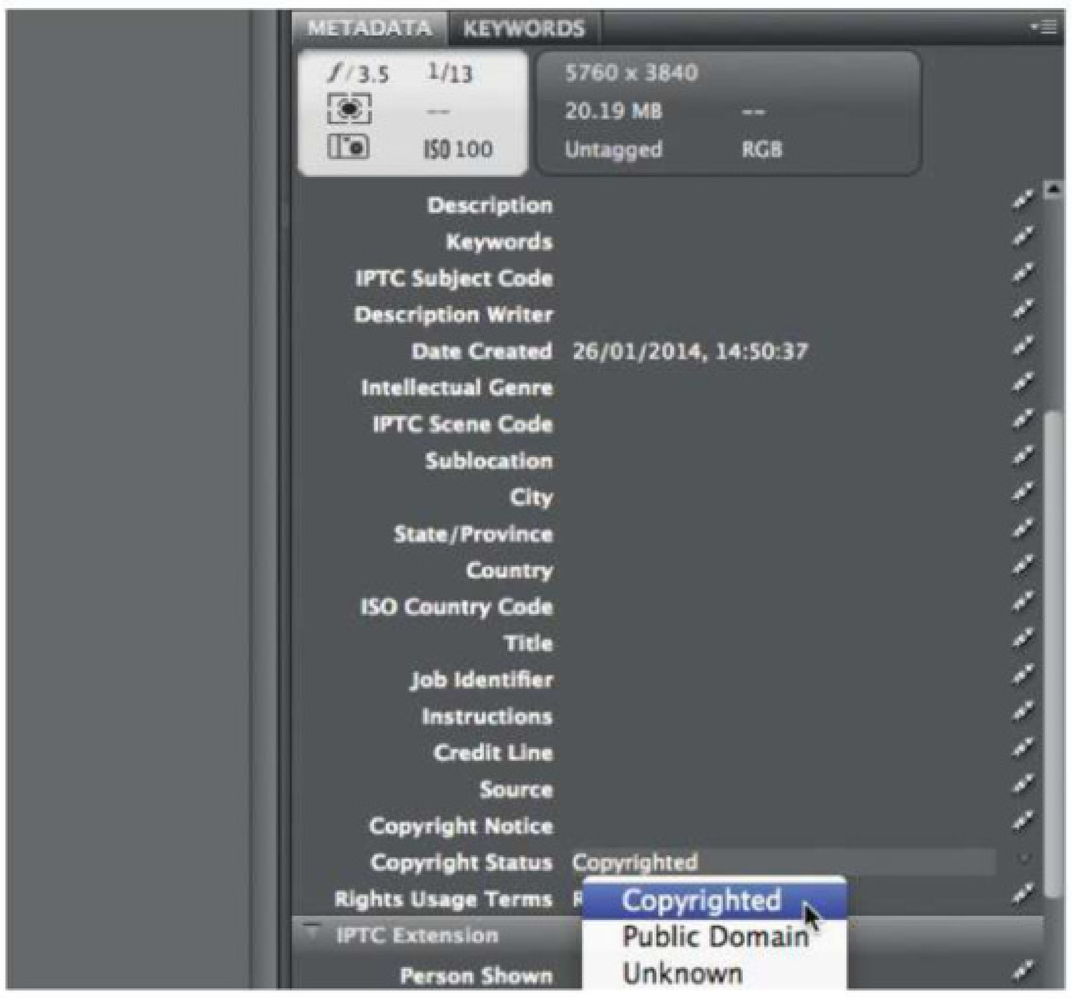
You can add other useful details to metadata in Bridge, such as keywords that describe the contents of an image. This enables you to find a file according to its subject, instead of having to scroll through a chronological list of images trying to remember when you shot a particular picture. Keywords remain embedded in a file's metadata, so they can be used by others to locate an image, which is handy if you want to sell your work as stock photography, for example. We'll demonstrate quick ways to add keywords and then search for them using the filter tools in Bridge.




Tools Window Help
Tue 11:23
TYCC_images(01) – Adobe Bridge
ESSENTIALS FILMSTRIP METADATA KEYWORDS
butterfly
Sort by Filename
CONTENT
PREVIEW
TYCC01.CR2
TYCC18.jpg
METADATA KEYWORDS
Assigned Keywords:
New Keyword
New Sub Keyword
Rename
Delete
Expand All
Collapse All
Find...
Remove Keywords
Import...
Clear and Import...
Export...
Events
Birthday
Graduation
Wedding
People
Jane Smith
Matthew
Ryan
Places
New York
Paris
San Francisco
San Jose
Tokyo
Other Keywords
butterfly
macro
wing
MacBook Pro

ORGANISE WITH BRIDGE



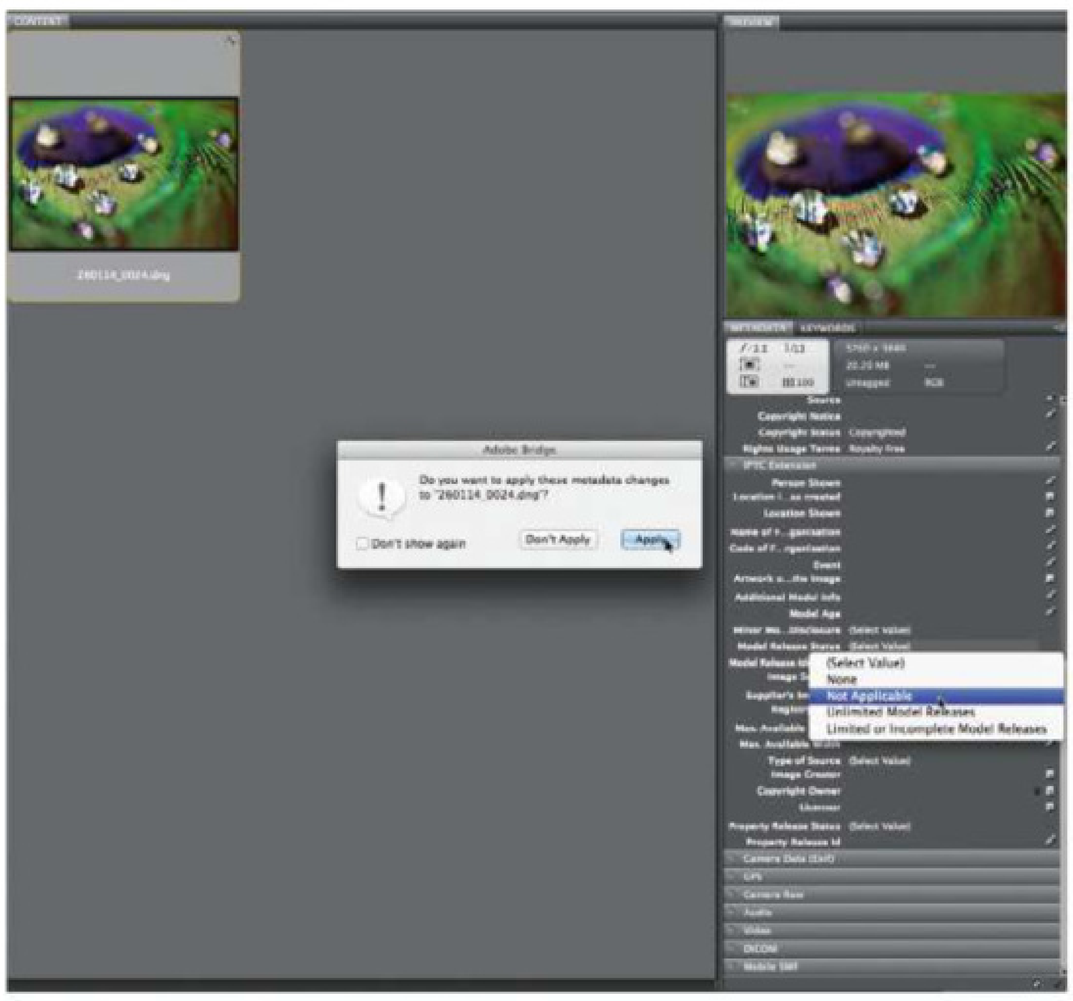


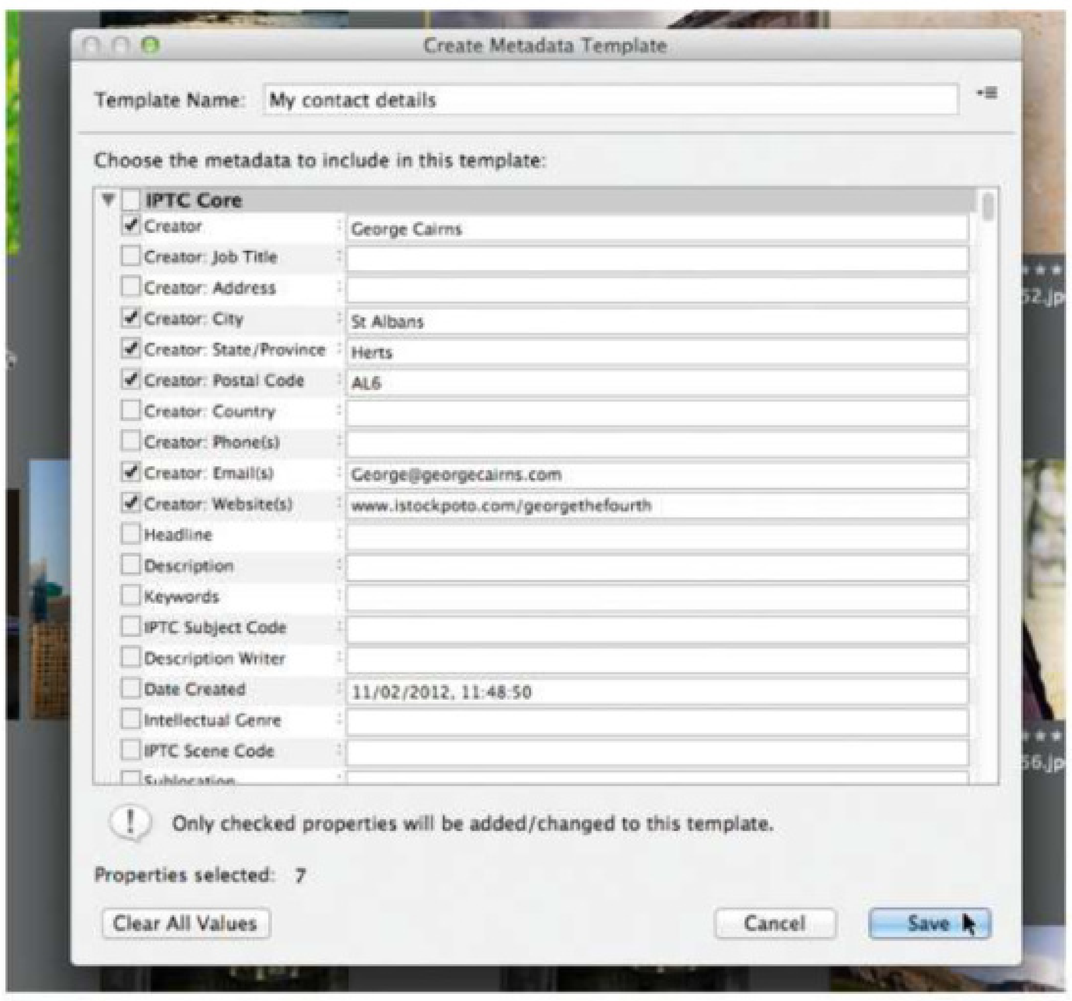
1 Examine the metadata

When importing images into Lightroom you can type your name into the Photo Downloader's Creator field. If you've chosen this option, you can check that your name is attached to the file. Click the thumbnail of an image and then toggle open the IPTC Core section of the Metadata panel. Next to the Creator label you'll see your name. If you didn't add your name while importing, you can still do so by typing in the adjacent text field.

2 Assign your copyright

You can also add your contact and website details to the file's metadata by typing in the appropriate fields. Scroll down in the IPTC Core panel to find the Copyright Status pop-up menu. Choose an option such as Copyrighted. When the photograph is opened in Photoshop the image tab will display a © symbol, indicating that the image is copyrighted. Viewers of the image can go to File›Info and read the info that you've added.



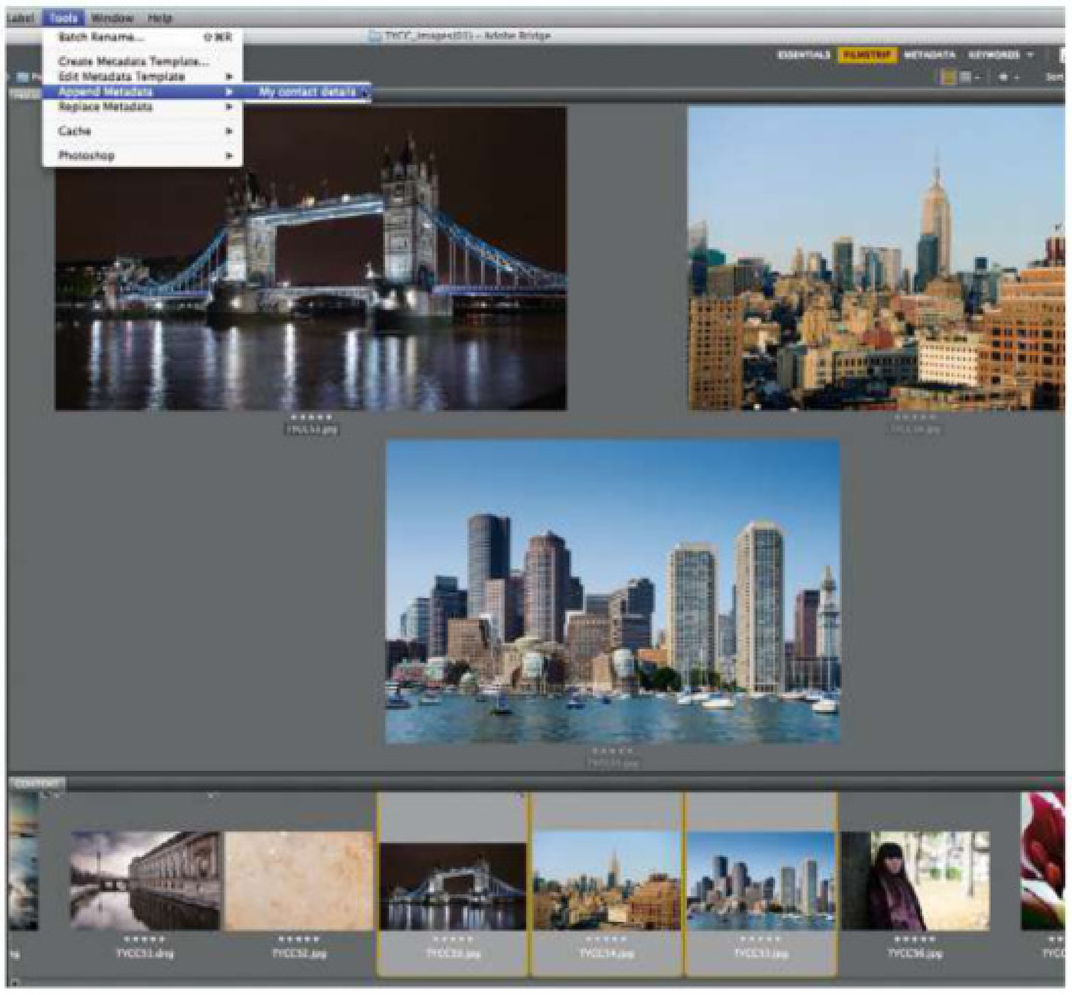


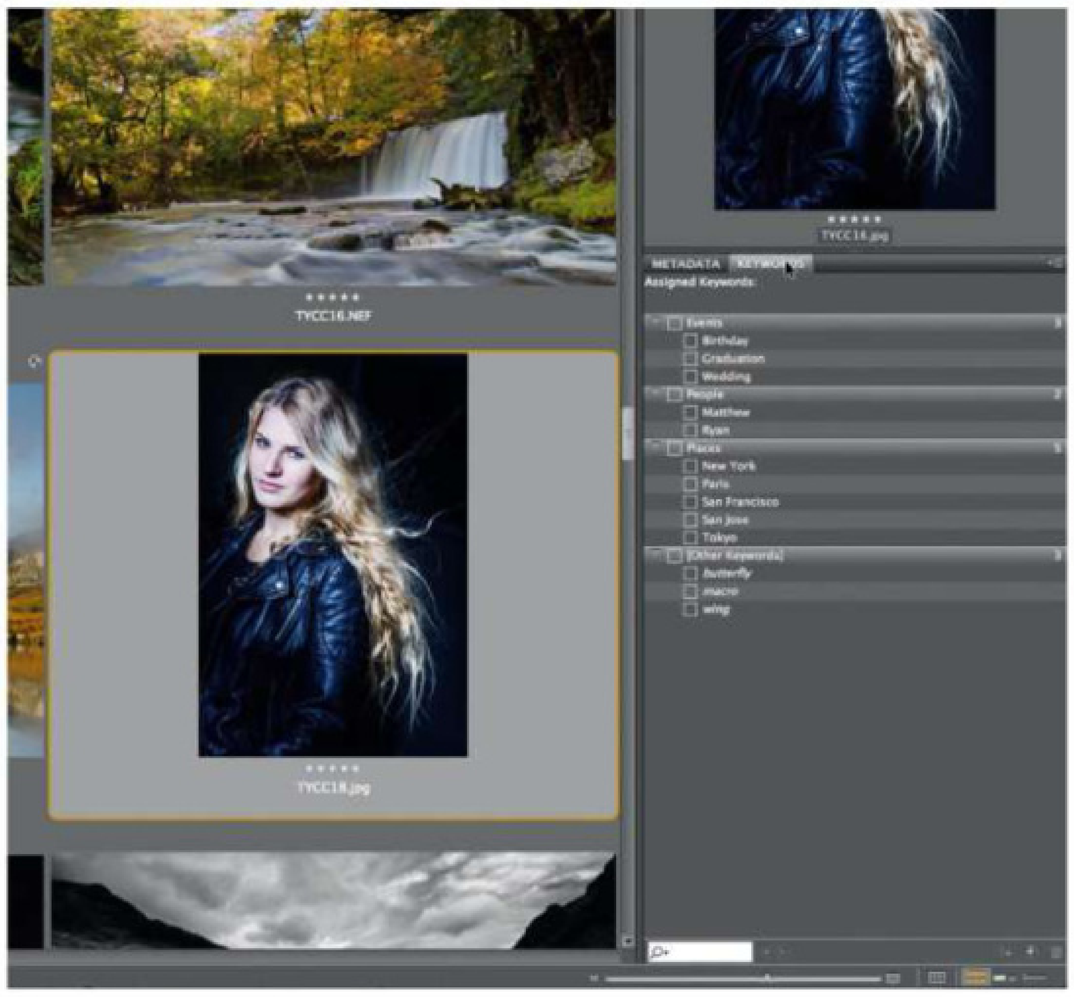
3 Apply the changes

If your image contains a person or a place, then you can add the appropriate details in Bridge's IPTC Extension panel. This panel also enables you to inform viewers of the image if there's a model or property release form available, which is useful for purchasers of stock photography. Once you've finished editing the metadata, click anywhere outside the Metadata panel. You'll then be asked if you want to apply the changes. Click Apply.

4 Create a metadata template

To speed up your workflow you can use Bridge to create a metadata template that contains useful generic information, such as your contact and copyright details. To do so, go to Tools›Create Metadata Template. Give the template a name, such as 'My contact details'. Type in the information. Any properties you add will automatically be checked. Click Save. You can create as many custom metadata templates as you like.



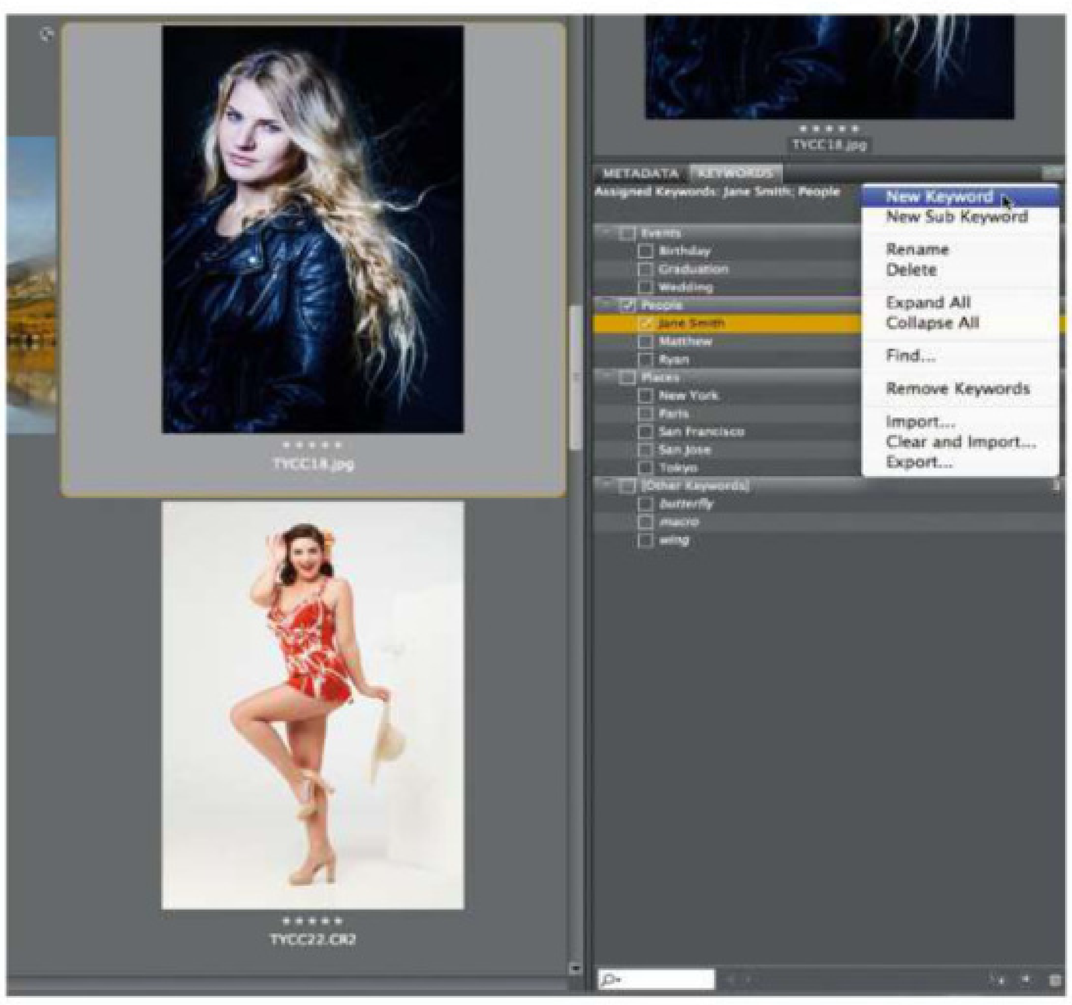


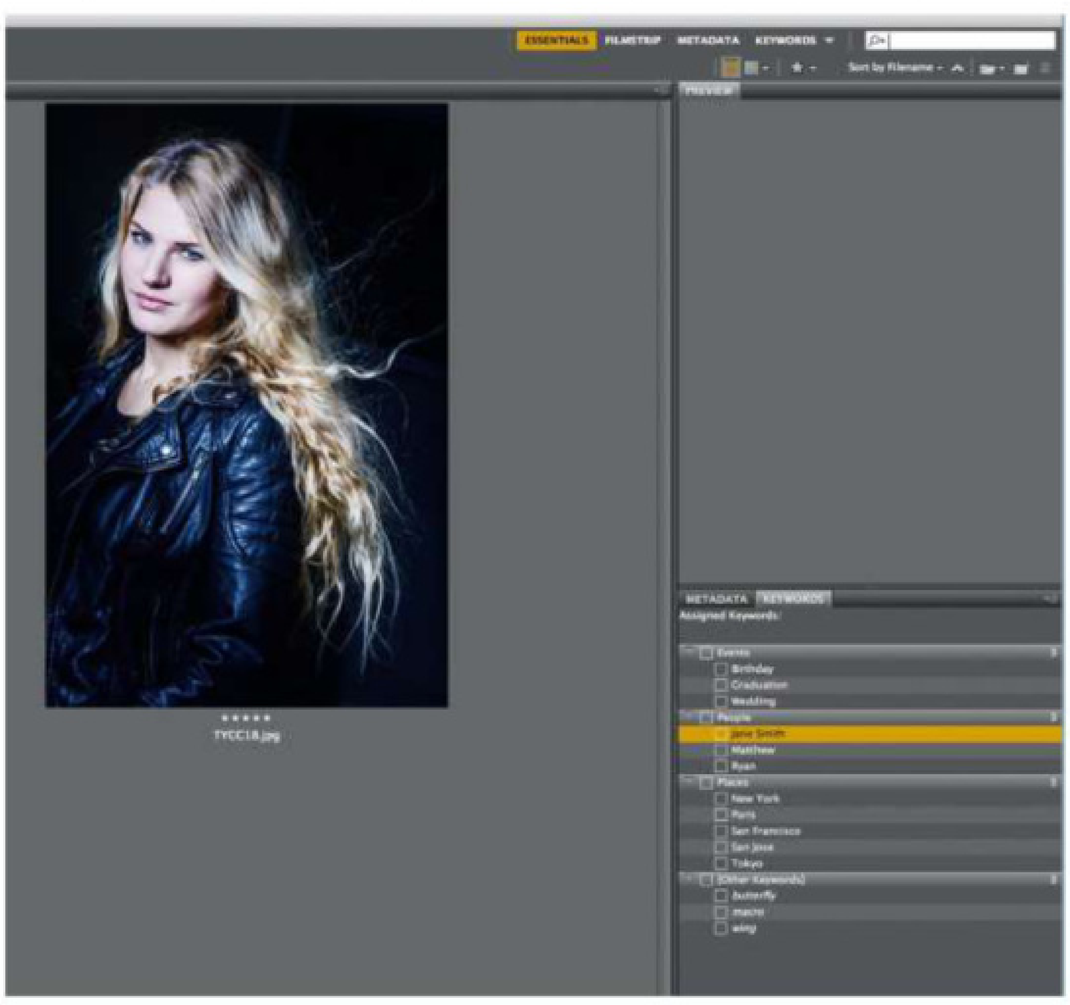
5 Batch process the metadata

Once you've created a custom metadata template you can apply it to multiple images. Shift-click to select a range of thumbnails in Bridge. Go to Tools and choose Append Metadata. You can then choose your custom metadata template. Your contact details will then be added to all the selected files in an instant. Click a thumbnail and check the Metadata panel's IPTC Core section to see the added information.

6 Add keywords

The IPTC Core panel also has a keyword field, so you can add a series of descriptive keywords to a particular file, such as macro, butterfly, leaf etc. You could also add common keywords, such as your name, to a metadata template. To help you add keywords quickly, Bridge has a Keywords panel adjacent to the Metadata tab. Here you'll find a collection of useful preset keywords, plus any that you've manually added to any images.





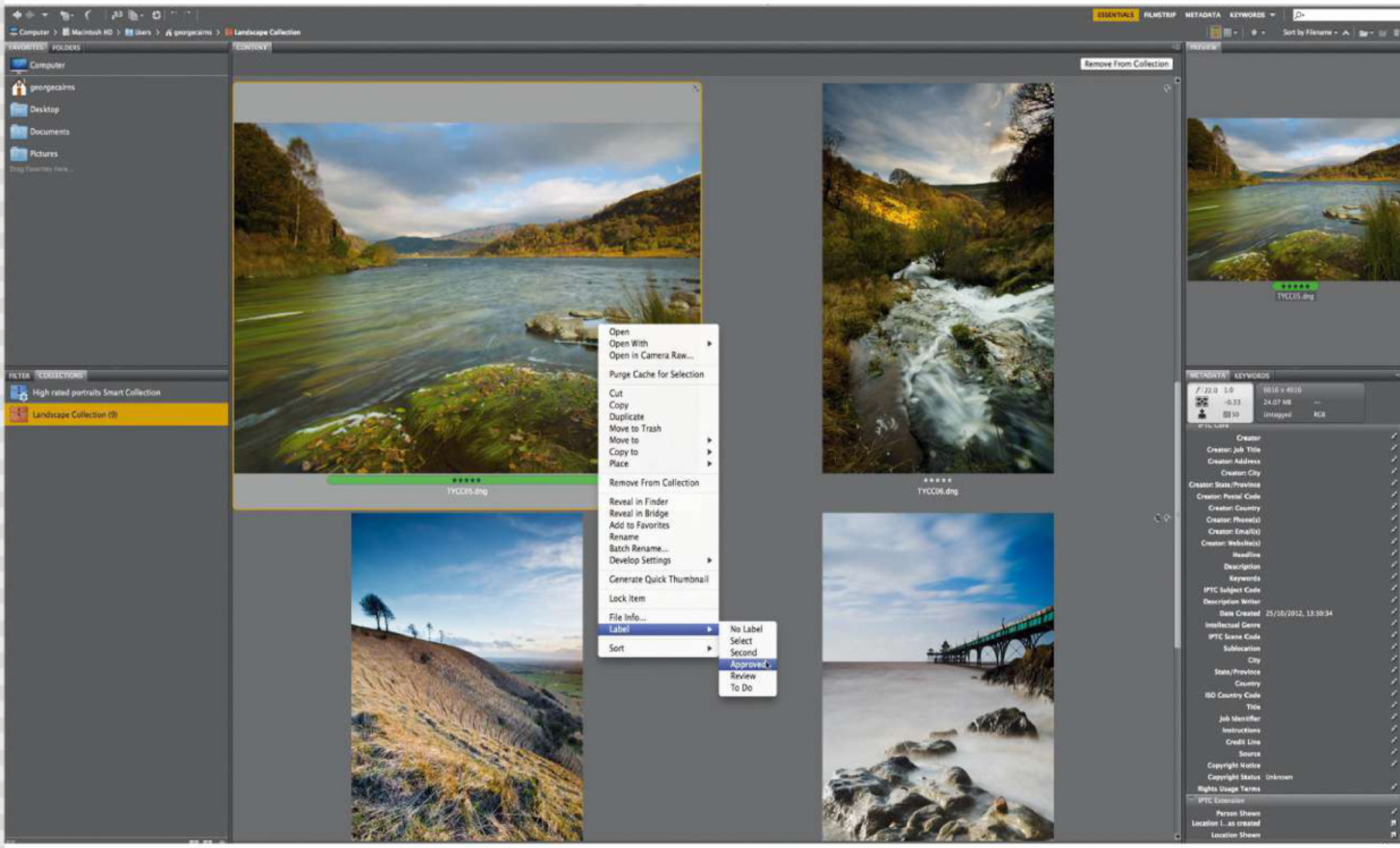
7 Create new keywords

To assign existing keywords to a selected image, tick the box next to a keyword category, such as People, or a subcategory, such as a person's name. If a keyword isn't available, click the fly-out icon at the top right of the Keywords panel and choose New Keyword. Type the keyword into the text field. Hit Enter. Drag the new keyword into a particular category. Tick the new keyword to assign it to the selected thumbnails.

8 Filter via keywords

To find images that contain a particular keyword, go to the Filter panel on the left of the Essentials workspace, then simply click a keyword in the list to display the appropriate thumbnails in the Preview window. You'll see a number next to each keyword that indicates the number of files that contain that particular keyword in their metadata. You can also type keywords into the Search field at the top right of Bridge's workspace. ■

GET THE FILES HERE: http://bit.ly/PMZ34



Organise your images in Bridge

Use Bridge's asset management tools to help you find particular pictures quickly and easily using Collections

As we revealed on the previous pages, Bridge enables you to create and assign keywords to single images or batches of images so that you can find them with ease using filters. Keywords provide one of the most powerful and useful ways of helping you to locate specific photographs, although Bridge has other tools that will help you to organise your ever-growing library of images.

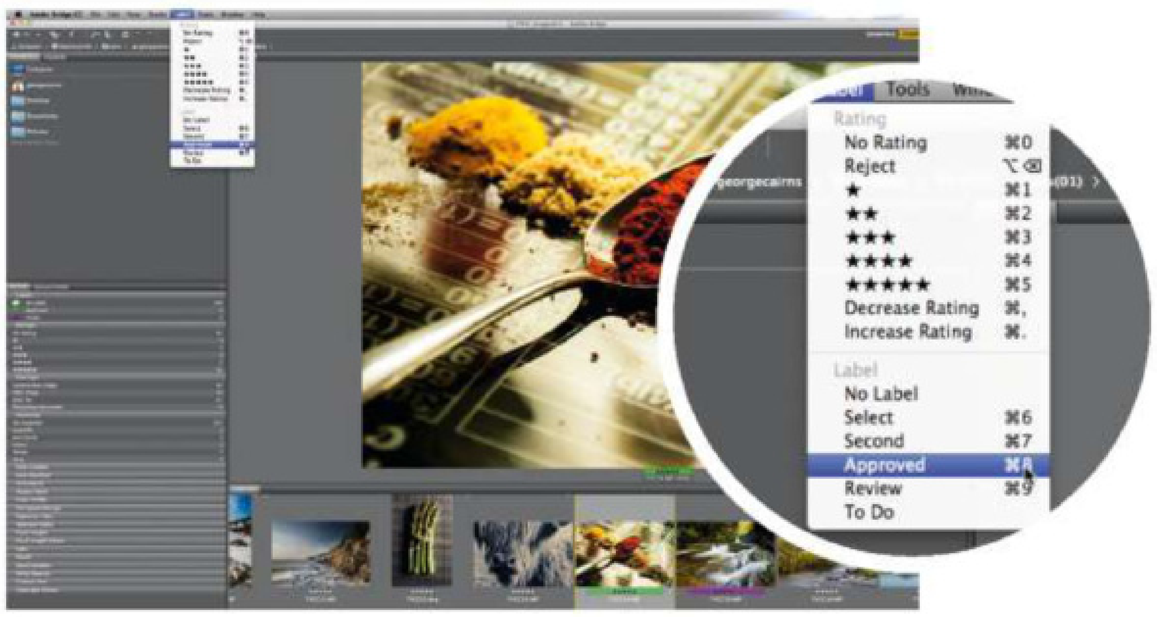
In pre-digital days we'd place our favourite prints into photo albums. These tended to gather and present images using particular themes, such as weddings or holidays, for example. In these digital days we have many more images to manage, so we can end up scrolling through hundreds of thumbnails in search of a particular image. In this walkthrough we'll demonstrate how to use the old photo album model to collect themed images together so that they are easier to access, courtesy of Bridge's Collections panel. You'll also learn how to use the powerful Smart Collections feature to find photos according to specific metadata information, such as the shutter speed or camera model used to capture the images.

We'll kick off by demonstrating how to quickly separate the wheat from the chaff by assigning labels and star ratings to particular pictures.



1 Assign ratings

Click the Filmstrip workspace so that you can get a good look at each image when you click its thumbnail. If you like an image, you can click the star icons below a thumbnail to assign up to five stars. You can also assign star ratings by pressing Cmd/Ctrl+ a number between 1 and 5.



2 Label your images

You can also assign ratings by clicking the Label menu at the top of the workspace. There are also colour-coded labels that indicate the status of a file. If a picture is ready for print, you could apply a green Approved label. Images that require editing might have a purple To Do label.



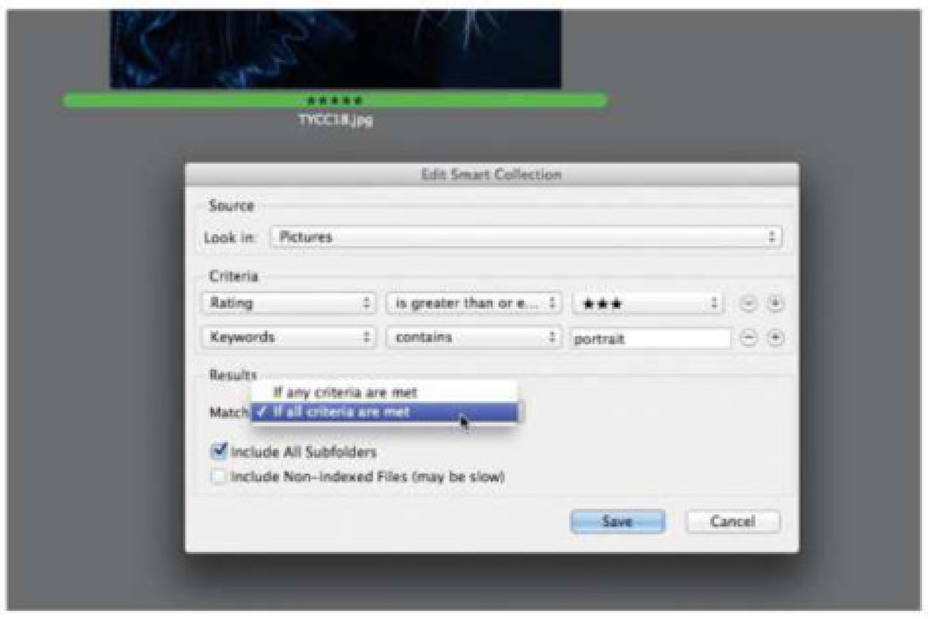
3 Filter your photos

Once you've assigned ratings and labels, you can search using them. Go to the Filter panel and click a coloured label to see all the files with that label. Narrow down your search by clicking other criteria such as a particular rating. You can also use the Filter items by rating option.



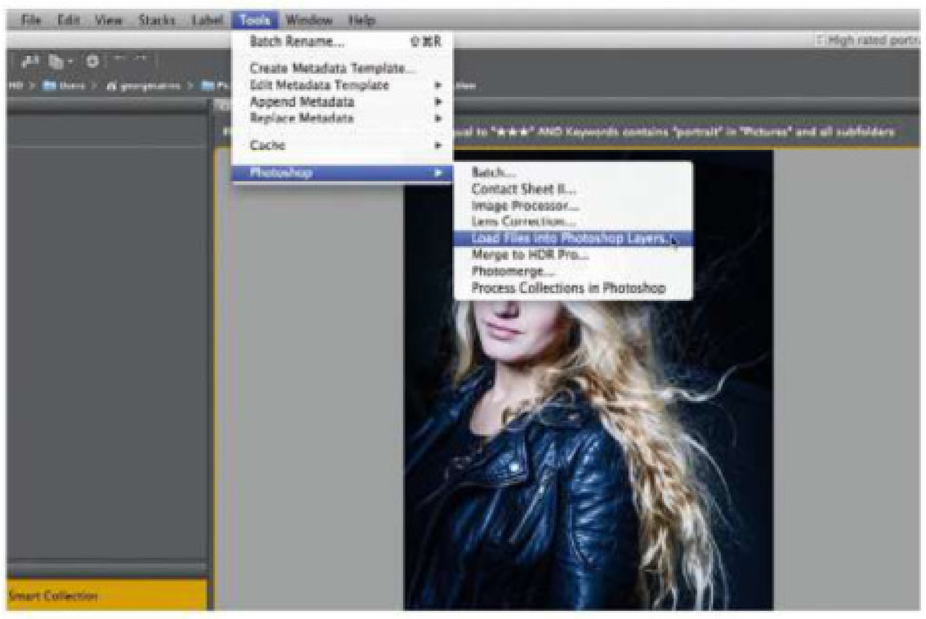
4 Create a Collection

To create an album-style Collection, click the Collections panel. Click the New Collection icon at the bottom. Label the Collection with an appropriate name, such as Landscape collection. Drag thumbnails from the Filmstrip into the Landscape collection's folder.



5 Create a Smart Collection

Click the New Smart Collection icon. Choose a Source for Bridge to look in. In Criteria, choose an attribute, such as Rating equals five stars. Click the + icon to add other criteria if necessary. Click Save. The Smart Collection will automatically gather appropriate images together.



6 Export to Photoshop

Once you've finished organising files in Bridge, you can double click to take a specific file into Photoshop. You can also go to Tools›Photoshop and use shortcuts that will jump-start a variety of Photoshop edits, such as placing two images into separate layers in the same document. ■


Photoshop File Edit Image Layer Type Select Filter View Window Help
Camera Raw 8.3 - Nikon D800



Raw file processing

Improve tones, colour and more using Photoshop's non-destructive raw file editor, Camera Raw

22 Introducing the Camera Raw editor
Learn how to use Photoshop's pro-level image-processing digital darkroom to reveal more colour and tonal detail in your images

24 Improve contrast and colour in your raw files
Discover how to process a digital negative to improve its colours and tones with our typical raw-editing workflow

26 Make selective raw adjustments
Make quick and effective selective tonal adjustments using the Graduated Filter, Adjustment Brush and Radial Filter tools

30 Do even more with Camera Raw
Camera Raw isn't just for correcting tone- and colour-based problems. Discover the raw processing tools in the additional tabs

32 How to create and use presets
Store commonly performed raw adjustments as presets and apply them to other images quickly and easily

GET THE FILES HERE: http://bit.ly/PMZ34

Introducing the Camera Raw editor

Learn how to use Photoshop's pro-level image-processing digital darkroom to reveal more colour and tonal detail in your images

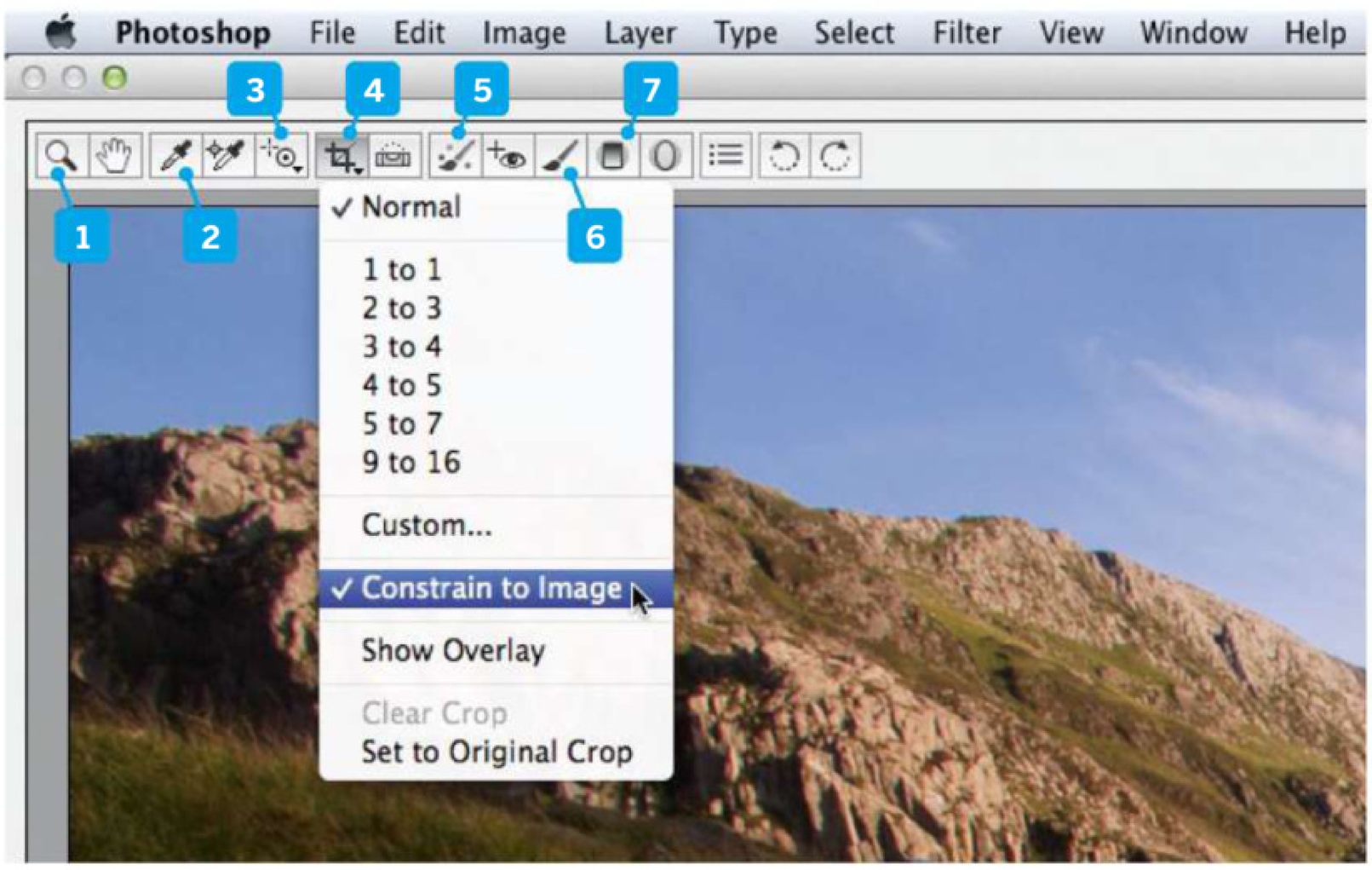
Once you've organised, rated and key-worded your images in Bridge you can double click them to launch them into Photoshop to edit them. If your files have been captured in a raw format such as CR2 or NEF, they will automatically open in the Adobe Camera Raw editor. JPEG format files will open in the standard Photoshop workspace, although you can send JPEGs into Camera Raw if you prefer using that workspace's tools.

By saving a photo as a JPEG, your camera creates a compressed file that doesn't take up much space on your memory card or your computer's hard drive. However, much of the information about the colour and tone in the image is lost. If you want to restore missing highlight or colour detail to a JPEG, you may end up revealing compression artefacts. A clear summer sky in a JPEG may consist of jagged bands of colour instead of a smooth gradient, for example.

By shooting in raw you capture more information about the colours and tones in a scene. This gives Photoshop more to work with. Here's how to use Camera Raw to reveal more colour and tonal detail... ■

Overview Camera Raw's tool bar

Discover which tools to use to improve composition and adjust colour and tone



1 ZOOM TOOL

When sharpening a raw image you need to see the individual image pixels. Right click with the Zoom tool and choose 100% from the menu.

2 WHITE BALANCE

This tool enables you to set the white balance by sampling something that should be white. If the pixels are too warm, the tool will cool the colours.

3 TARGETED ADJUSTMENT

This powerful tool enables you to sample an area's colours or tones with a click. You can then drag up to lighten the area, or down to darken it.

4 CROP TOOL

This tool enables you to improve composition by removing the frame edges. The tool is non-destructive, so you can restore missing edge details at any time. The neighbouring Straighten tool enables you to counteract tilted horizons.

5 SPOT REMOVAL

This tool enables you to sample a clear patch of sky, for instance, and use it to hide artefacts such as a sensor spot. It's Camera Raw's version of the Clone Stamp tool.

6 ADJUSTMENT BRUSH

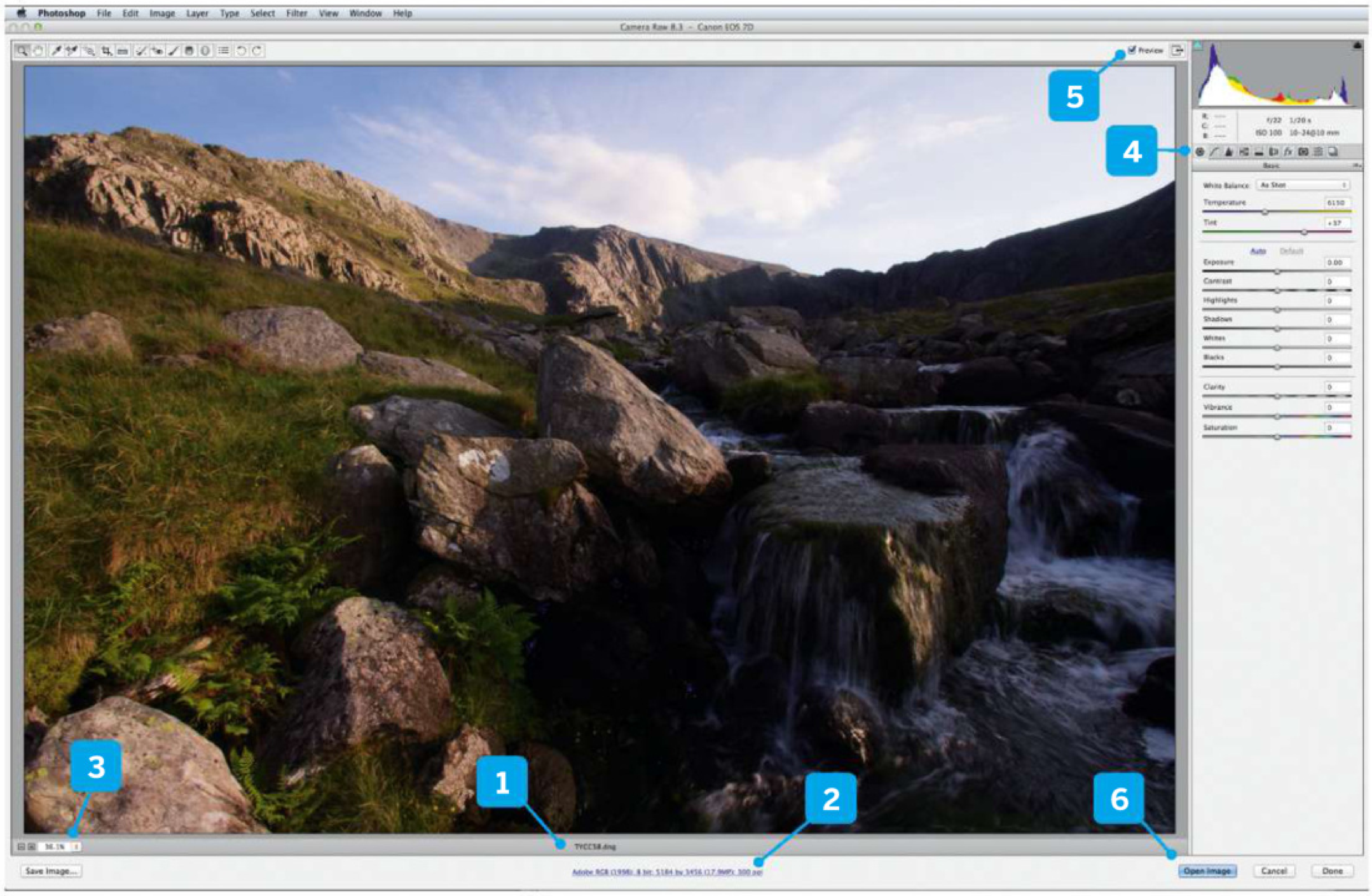
This tool enables you to make selective brush-based adjustments, such as lightening (dodging) or darkening (burning) the tones.

7 GRADUATED FILTER

This tool acts like a graduated neutral density filter on a camera's lens, enabling you to darken bright skies without blowing out a correctly exposed landscape, for instance. Or you could brighten an under-exposed landscape without over-exposing the sky.

Photoshop Anatomy Camera Raw editor

Familiarise yourself with Camera Raw's key features



1 RAW FILE

Our TYCC58.dng raw file has been saved as a digital negative. This native Adobe raw format means that the image will automatically open up in Photoshop's Camera Raw editor. We can then use the suite of tools and tabs to process the image.

2 WORKFLOW OPTIONS

Click this link to open the Workflow Options dialog. Here you can choose a colour space (such as the print-friendly Adobe RGB (1998). You can also increase the Depth to 16 bits per channel to squeeze more information out of the raw file.

3 ZOOM LEVEL

It's often useful to see the image close up when working in Camera Raw, so click this pop-up menu to choose a magnification percentage. You can also click the + or - icons to zoom in or out in increments. Alternatively, press Cmd/Ctrl and the plus or minus keys to zoom in or out.

4 THE BASIC TAB

This tab contains most of Camera Raw's colour- and tone-correcting tools. The adjacent Detail tab enables you to sharpen up your raw images to create a print with more punch. We'll explore these tabs in more detail later in this chapter.

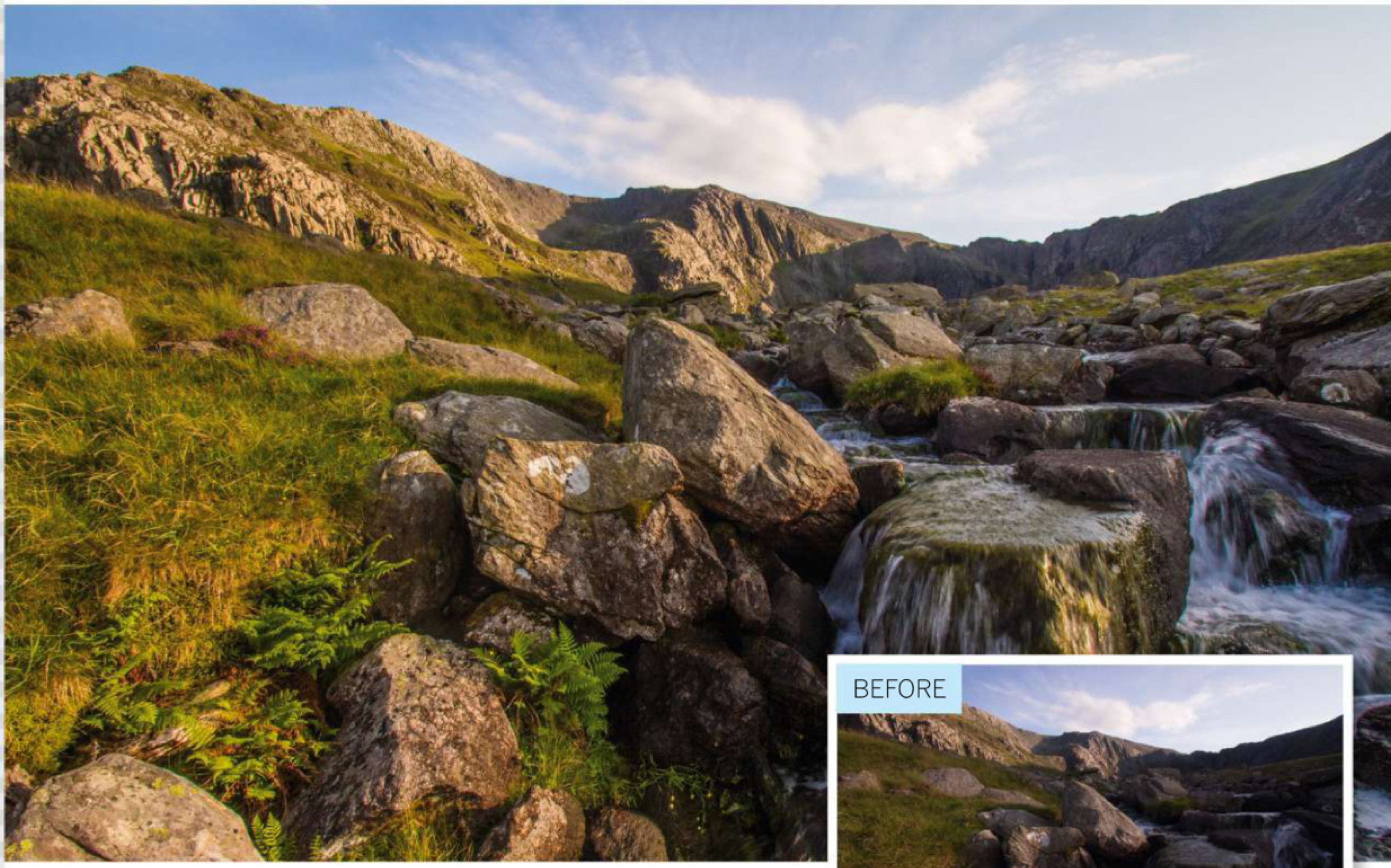
5 PREVIEW

Click this box to toggle between the image's original unprocessed raw file settings and the edited version of the image. This enables you to compare before-and-after versions of the picture.

6 OPTIONS

Once you've finished processing your raw file, click Open Image to take the processed image into the main Photoshop workspace, where you can add text or apply filters, for example. Alternatively, click Done to save all the slider settings, so you can open it later on and continue fine-tuning the look.

GET THE FILES HERE: http://bit.ly/PMZ34



Improve contrast & colour

Discover how to process a digital negative to improve its colours and tones with our typical raw-editing workflow

Now that you've been introduced to the key components in Camera Raw, you can begin to process a raw file to reveal missing tonal detail and enhance colours. Our starting image lacks detail in the under-exposed shadows, so we'll show you how to use the sliders in the Basic panel to selectively lighten these areas without blowing out the correctly exposed sky. You'll also learn how to use the Clarity slider to increase midtone contrast and tease out more texture and detail in the rocks.

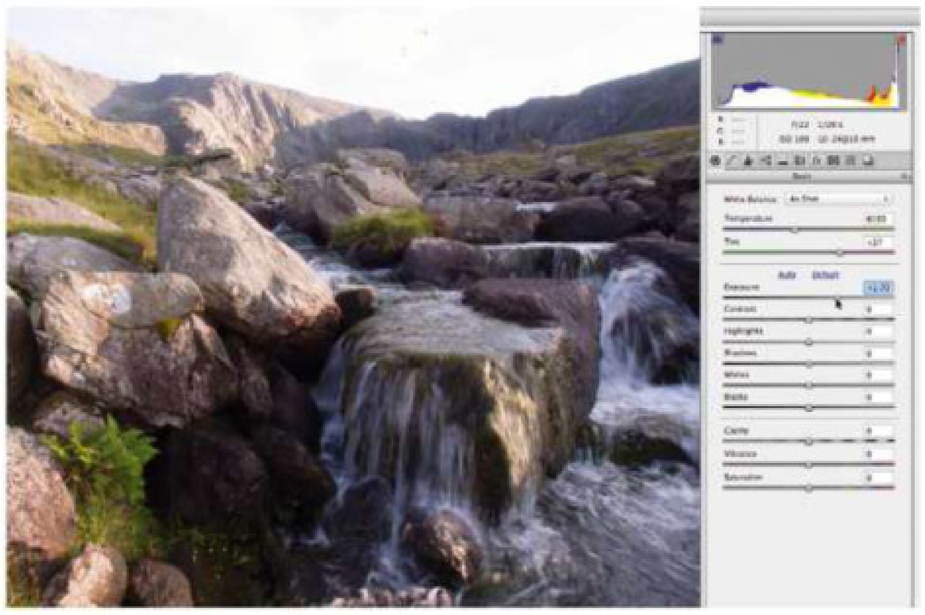
You may feel that to shoot and process in raw is an advanced skill, but this isn't the case. The raw editor places all the colour, composition and tone-tweaking tools close to hand, which removes the need to search menus and sub-menus. Best of all, the raw editor is non-destructive. You can't permanently change any of the original file's information, so it's easy to revert back to the original settings. This means you're free to experiment and make mistakes without spoiling the original image or worrying about making backups.

When you shoot in the JPEG format, the camera will apply colour and tonal tweaks to the image according to the Scene mode that it's set to. This makes it harder to change the look of the image. By shooting in raw you actually have much more control over the processed picture's colours and tones.



1 Open the image

If you're browsing in Bridge, double click the TYCC58.dng thumbnail to open it in Camera Raw. Or in Photoshop, choose File›Open and browse to find the shot. Click Open. The file is a digital negative, so it will automatically open in Camera Raw.



2 Examine the histogram

The Histogram window shows lots of strong shadow information on the left, but weaker midtones in the middle. This indicates that the image is under-exposed. By dragging Exposure to 1.70 you can reveal more detail in the shadows and midtones, but this blows out the highlights.



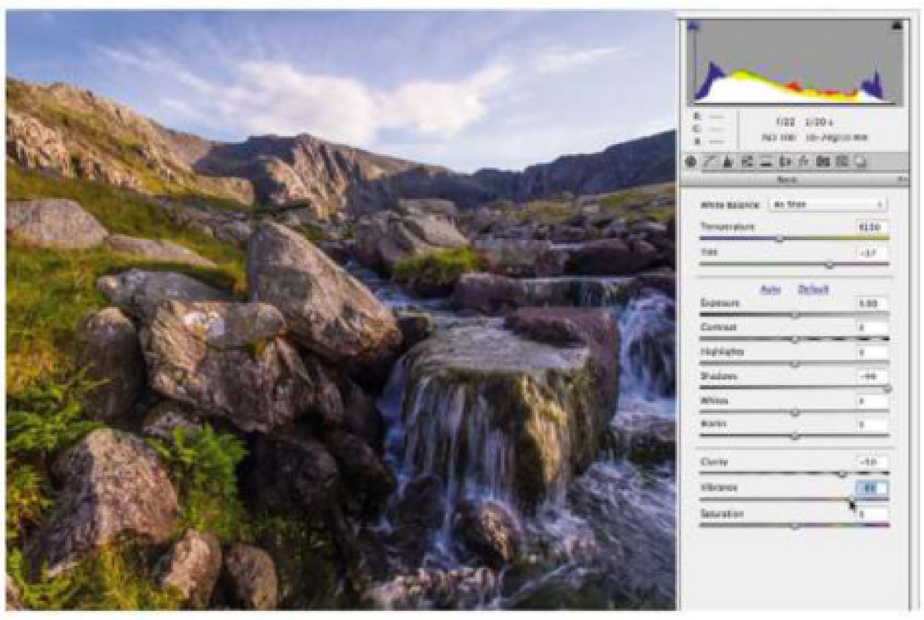
3 Make a selective adjustment

Click Default to restore the image to its original settings. If you place the cursor on the left of the histogram you'll see that the Shadows slider is responsible for this section. Set the Shadow slider to +100. This lightens the shadows without over-exposing the highlights.



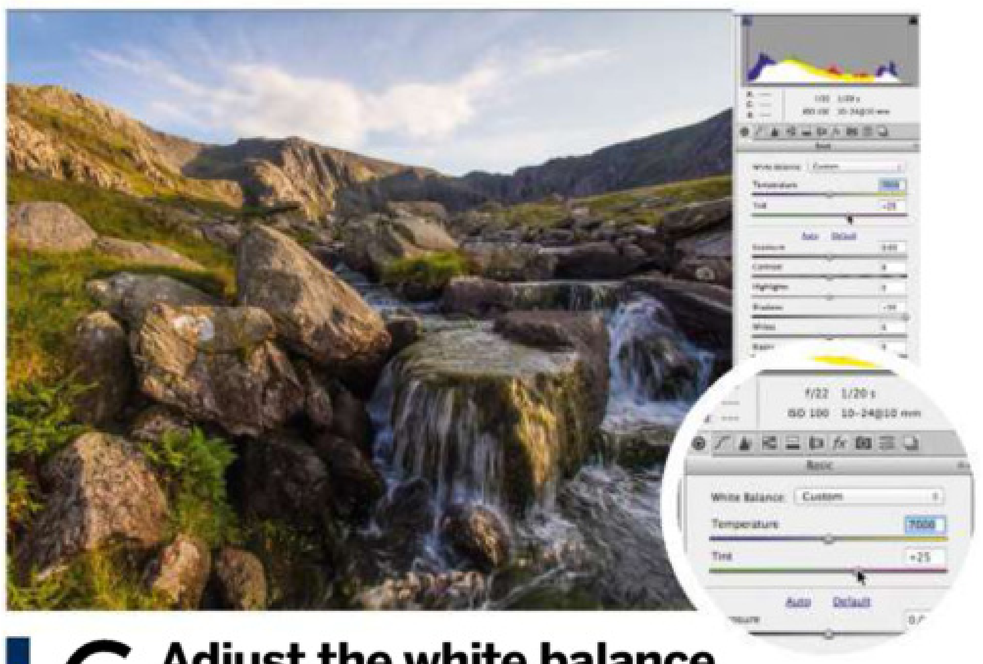
4 Increase the midtone contrast

To tease out more detail in the water, push Clarity up to 50. This increase in midtone contrast makes the foam look much brighter and whiter against its darker shadowy surroundings, giving it more impact. It also reveals more texture in the rocky midtones.



5 Boost the saturation

The grass has plenty of colour, but the sky looks desaturated. If you increase the saturation you'll improve the sky, but create over-saturated and unprintable colours in the grass. By boosting Vibrance to +60 you selectively increase the saturation of weaker colours.



6 Adjust the white balance

Now that you've revealed more detail and colour in the under-exposed areas, you can see that they look quite cold. To reduce the intensity of the blue colour cast in the shadows, set Temperature to 7000 degrees kelvin. Drop Tint to +25 to reduce the hint of magenta in the shadows. ■

GET THE FILES HERE: http://bit.ly/PMZ34

Selectively adjust raw files

Make quick selective adjustments using the tools in Camera Raw

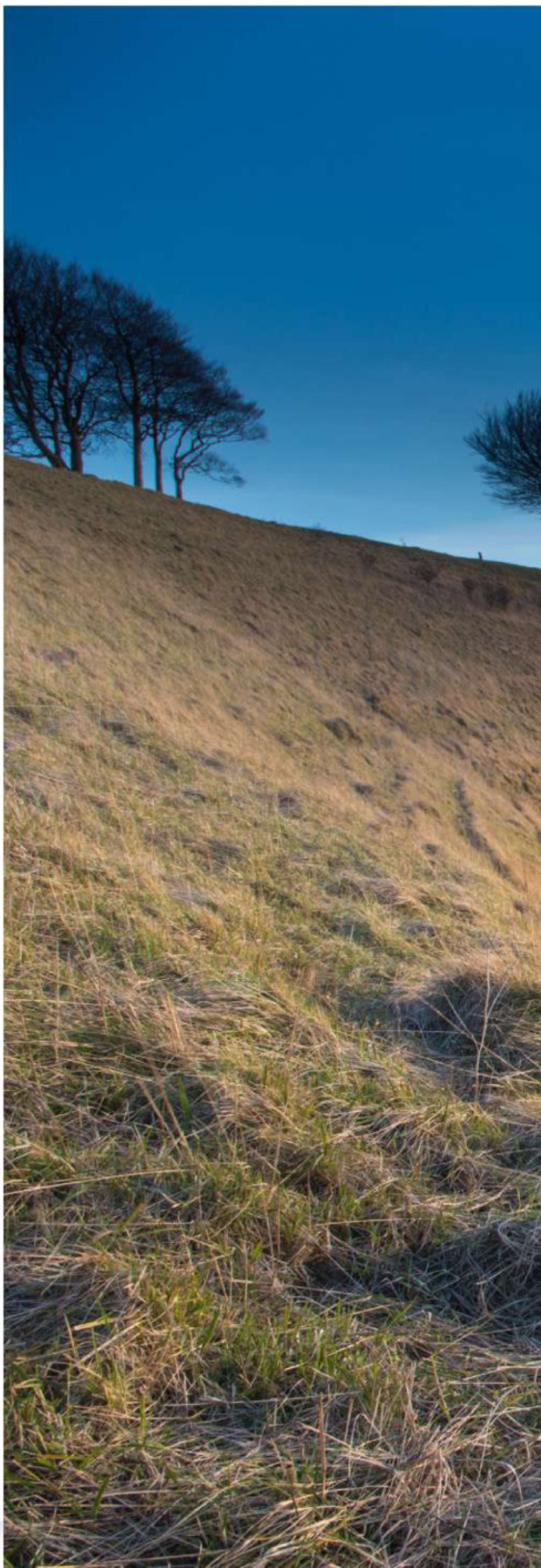
On the previous pages we demonstrated how to use the Basic panel's sliders to target and lighten shadows without over-exposing brighter skies. Tone-specific sliders, such as Shadows and Highlights, may solve most of an image's exposure-related problems, but Camera Raw has a suite of selective adjustment tools in case you need to target and adjust specific tones with more control.

In traditional analogue darkrooms, photographers could deal with high-contrast scenes by using bits of card to vary the exposure time of different parts of a negative. They lightened (dodged) or darkened (burned) selected areas to get detail in the shadows and highlights. Photoshop users can make selective brush-based edits courtesy of the versatile Adjustment Brush.

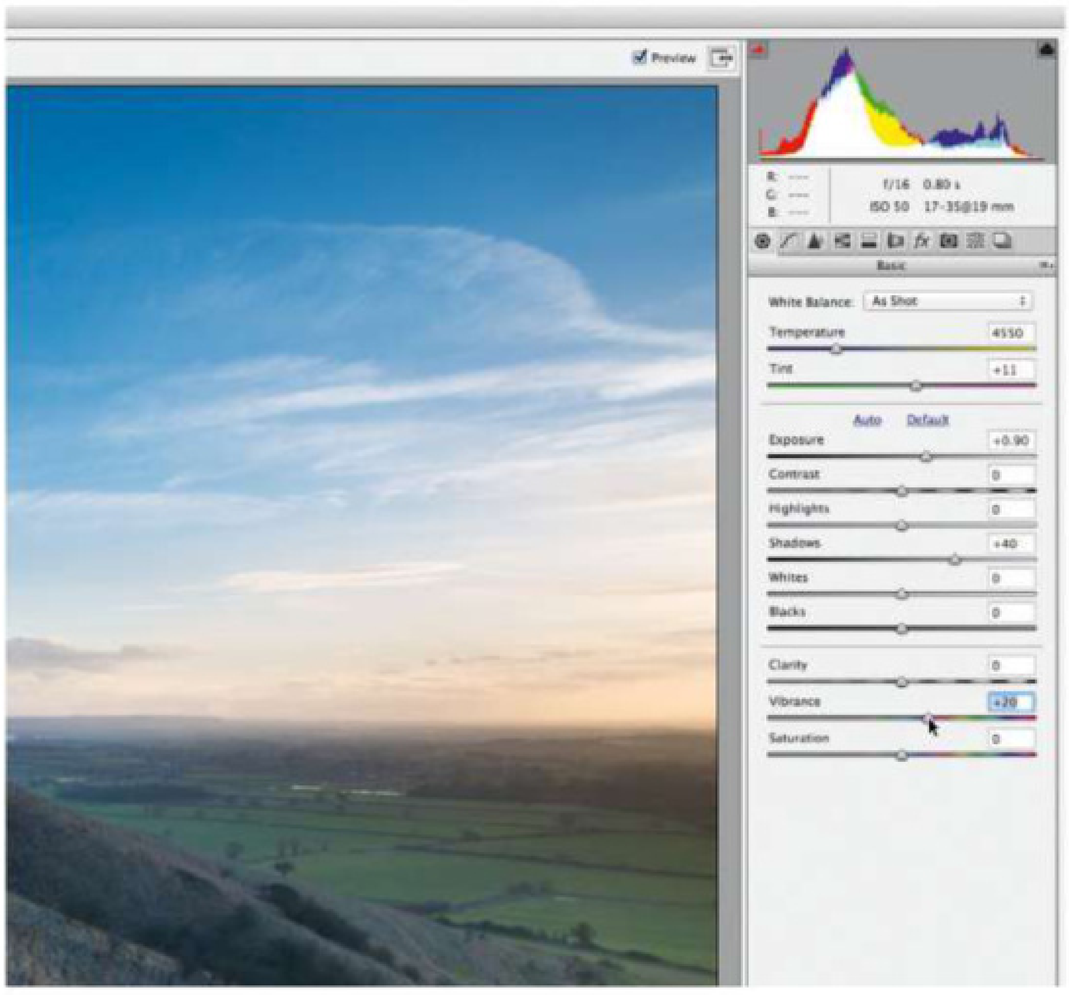
When shooting a high-contrast scene, such as a dark, back-lit landscape with a bright sky, photographers can place a graduated neutral density filter over the lens. This filter allows them to get a more balanced exposure because less light enters the camera at the top of the frame. Camera Raw enables you to mimic this technique using the Graduated Filter tool, as we'll demonstrate in this walkthrough.

The Radial Filter behaves like a combination of the Adjustment Brush and the Graduated Filter. Like the Adjustment Brush, the Radial Filter can make circular tonal adjustments. Like the Graduated Filter, the Radial Filter gently blends its area of influence with unedited tones in the rest of the image, allowing you to perform subtle and seamless tone-tweaking edits.



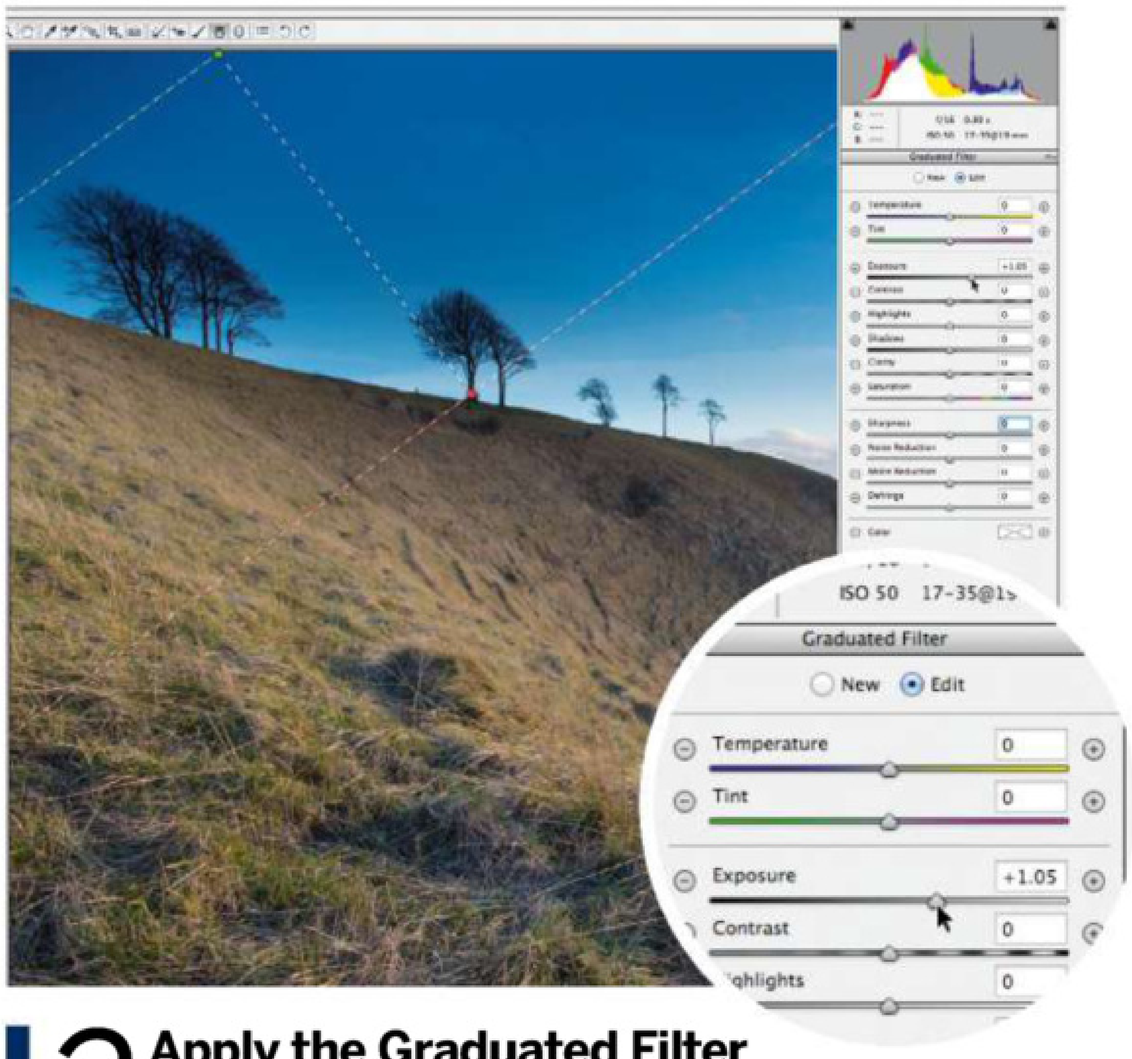






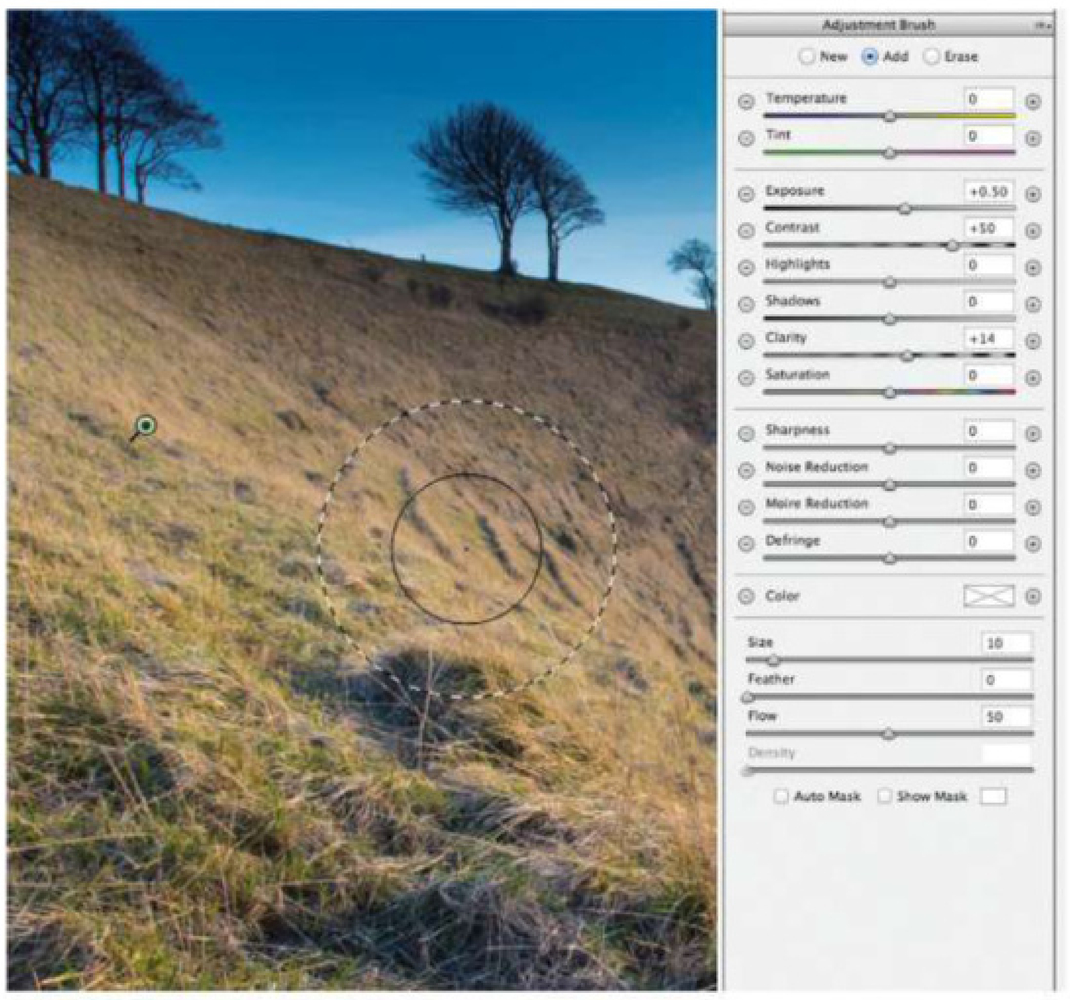
1 Make global adjustments

Open TYCC59.dng. The sky on the right is almost correctly exposed, but the darker sky on the left and the hill are lacking detail. This image is a prime candidate for some selective tonal adjustments. Before using a selective adjustment tool such as the Graduated Filter, we'll make some tonal tweaks using the sliders in the Basic panel. Boost Exposure to +0.90. Lighten the Shadows to +40. Push Vibrance to +20 for a more intensely coloured sky.



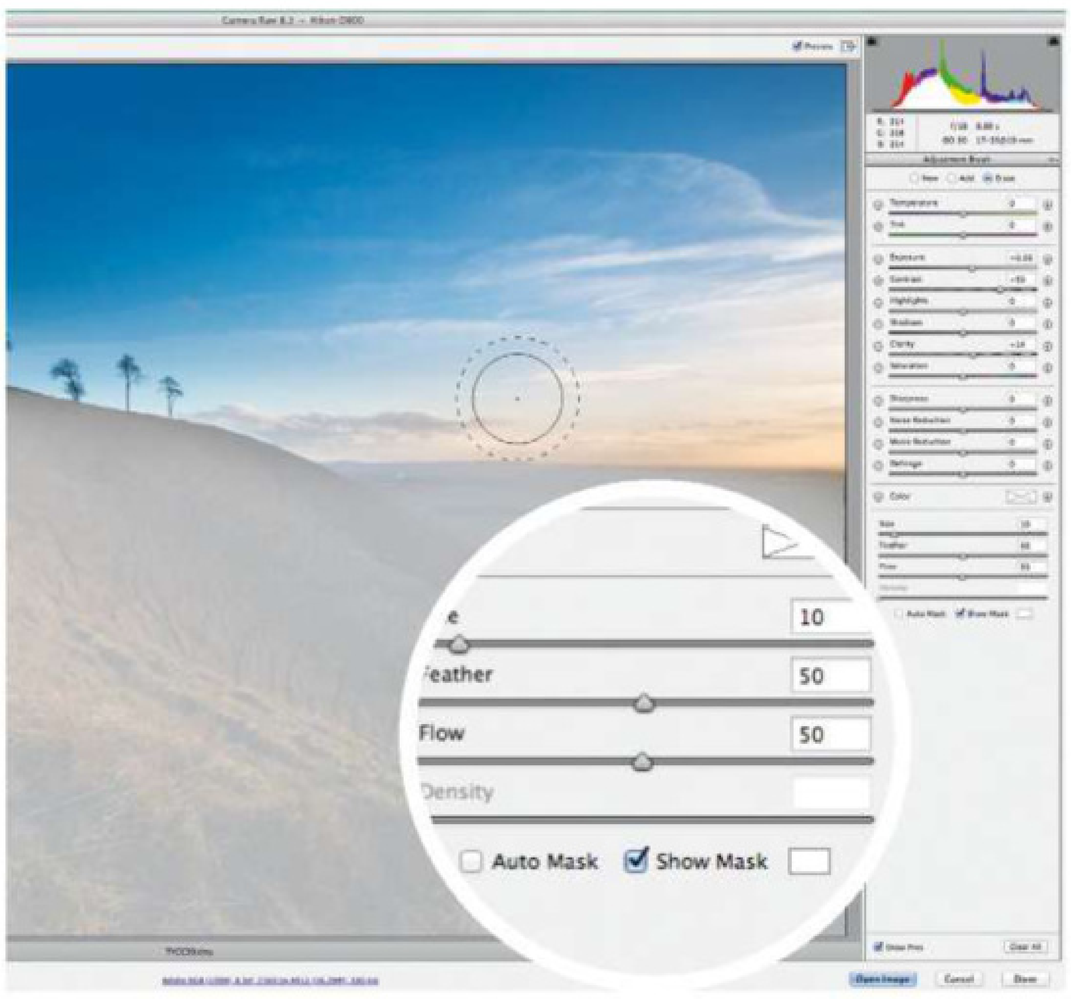
2 Apply the Graduated Filter

To make the sky look more evenly exposed, grab the Graduated Filter tool from the toolbar (or press G to summon it). Click the darker top left corner and draw a diagonal line down to the middle tree. A Graduated Filter panel will appear. Increase the Exposure slider to +1.5 to lighten the area at the start of the filter (the green and white line). The exposure adjustment will gently reduce towards the end of the filter (the red and white line).



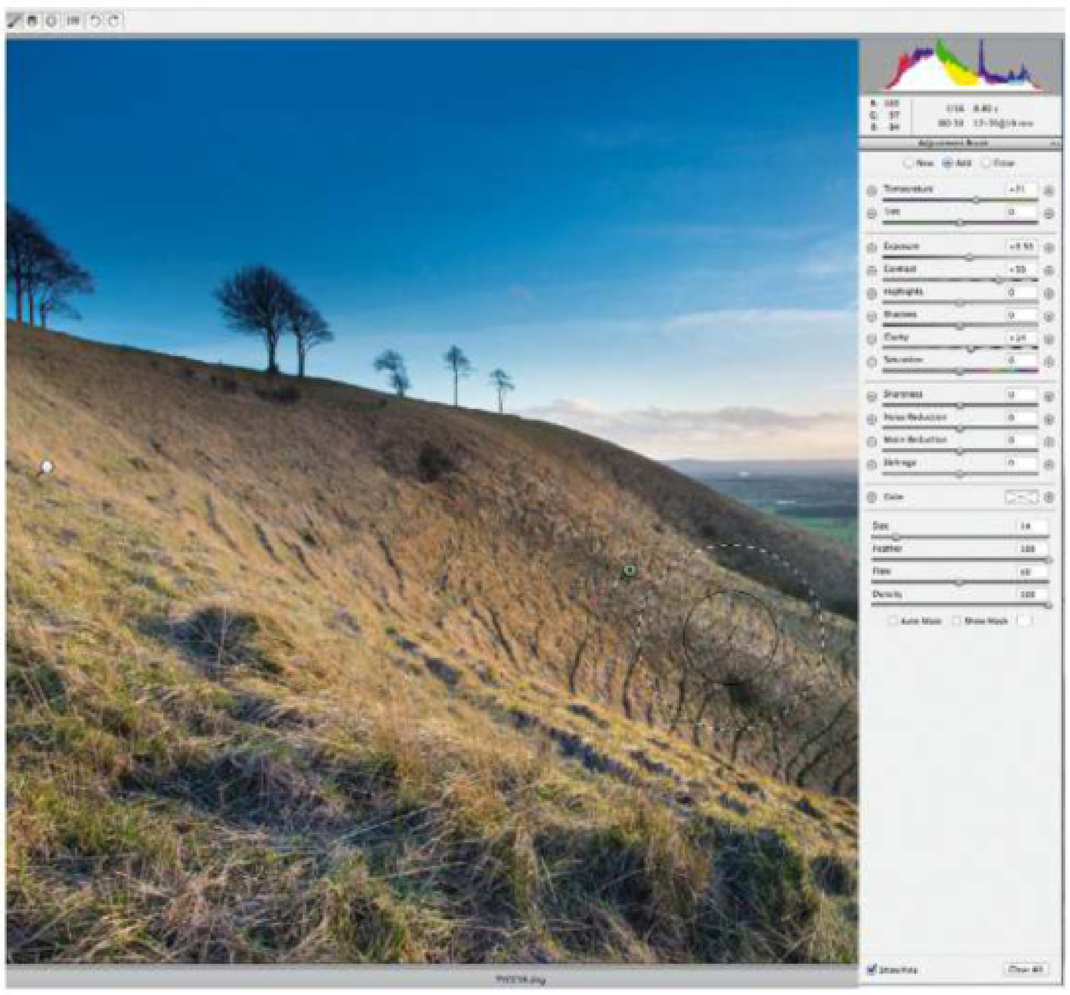
3 Use the Adjustment Brush

Click the Adjustment Brush icon (or press K to summon it). Click to place a pin on the hill. The Adjustment Brush panel will appear. Boost the Exposure slider to +0.50. Set Contrast to +50 for whiter highlights and darker shadows. Make midtone textures look sharper and more contrasty by pushing Clarity up to +50. Set Size to 14. Now paint over the terrain (but not the sky) to selectively lighten it using these settings.



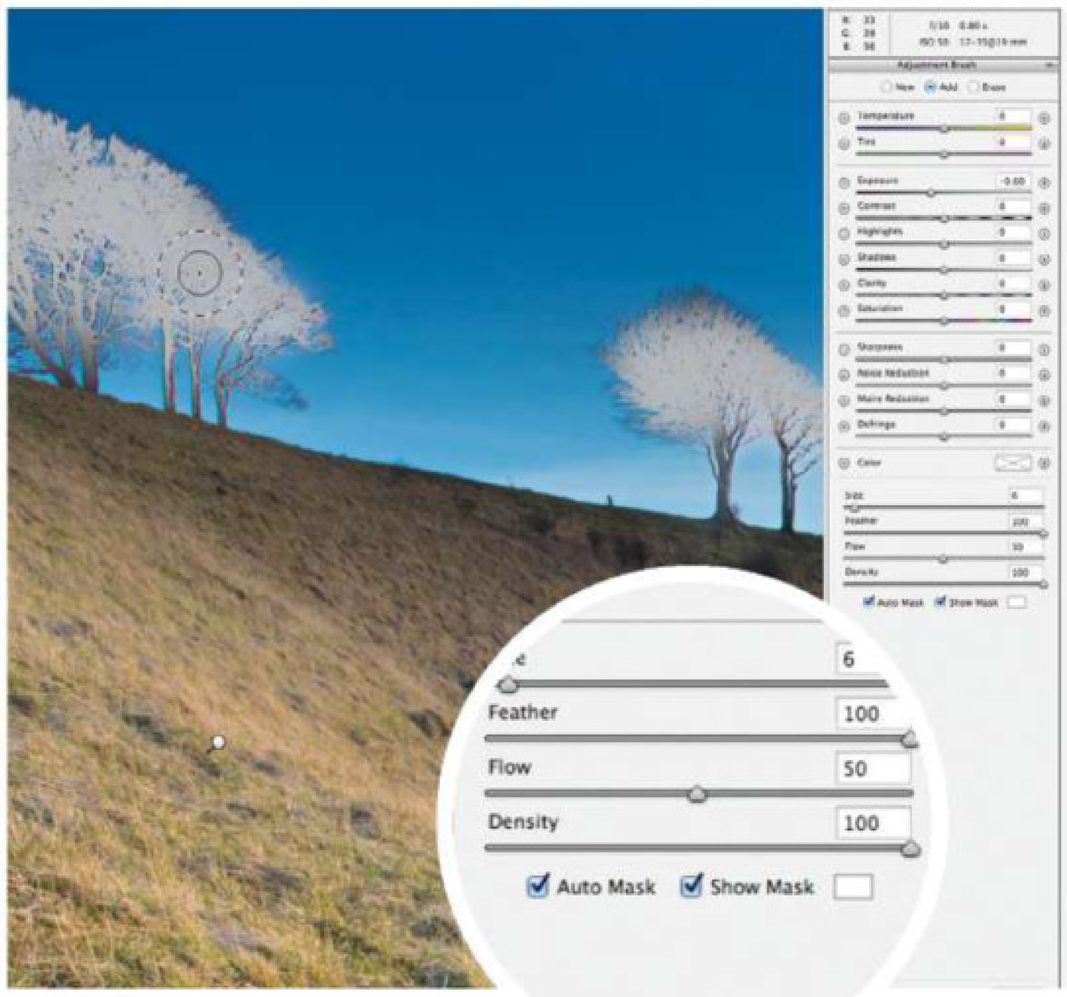
4 Fine-tune the mask

Tick the Show Mask box in the Adjustment Brush panel. A grey mask will appear. This mask indicates which areas are being altered by the currently active pin. If you've painted the Adjustment Brush over the sky or trees, you can modify its area of influence so that only the ground is adjusted. Click the Erase button and then paint to remove the grey mask from the sky sections. You can fine-tune the affect of any adjustment pin using this technique.



5 Lighten and add warmth

Clear Show Mask so that you can see the image's edited tones. The more distant shaded hill looks too cold and dark compared with the warmer sun-lit foreground hill. You can brighten and warm it up with another selective adjustment. Click the New button in the Adjustment Brush panel. Click to place another pin. Keep the same Exposure, Contrast and Clarity settings, but increase Temperature to +21. Paint to lighten and warm the shaded hill.



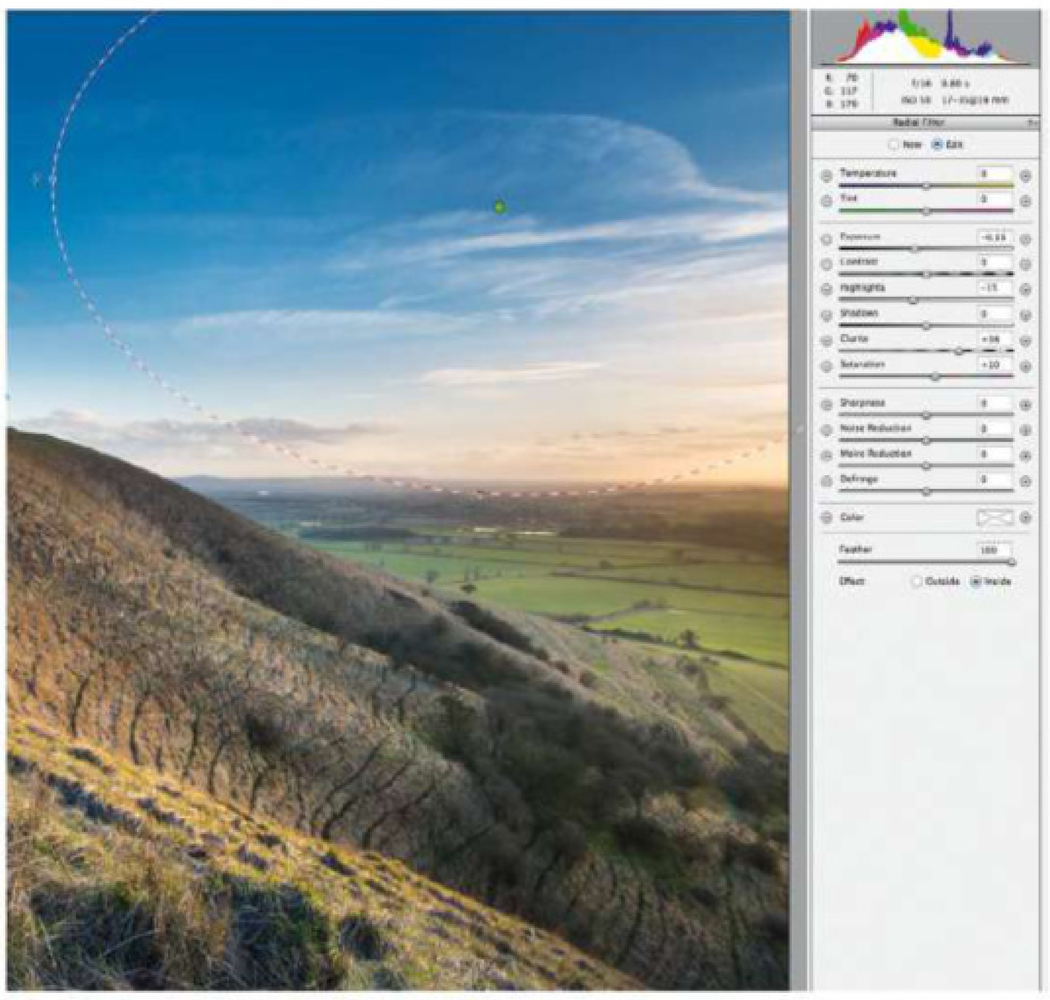
6 Use Auto Mask

The Auto Mask box in the Adjustment Brush panel enables the tool to be even more selective. Click New. Set Exposure to −0.60. Set all the other sliders to 0. Tick The Auto mask and Show Mask boxes. Click to place a pin on the trees, then paint over them. The Auto Mask option helps the Adjustment Brush select and darken the trees without changing the contrasting sky. You can use the Erase button to tidy up any sky pixels that might be included.



7 Tweak the results

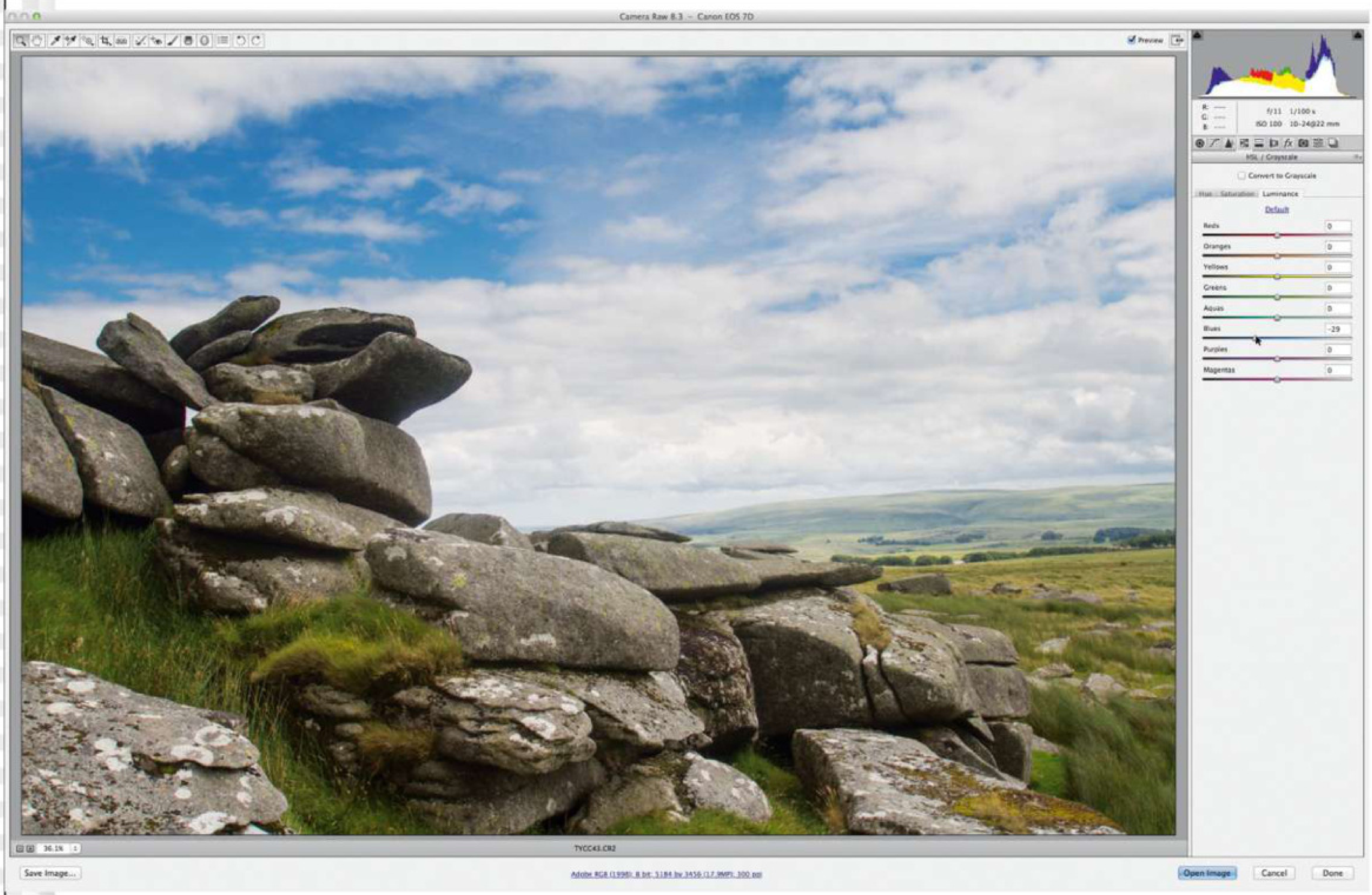
You can click any Adjustment Brush pin to access its settings, and then tweak the sliders in the Adjustment Brush panel to fine-tune the look of the selective adjustments. You can also click the Graduated Filter tool and tweak the position and intensity of the gradated sky adjustment. Editing a raw file is a non-destructive process. You can right click a pin and choose Delete to restore the image's original colours and tones.



8 Use the Radial Filter

The sky on the right-hand side is a little too bright. To selectively darken it, grab the Radial Filter from the toolbar. The Radial Filter panel will appear. Set Exposure to −0.55, Highlights to −15, Clarity to +38 and Saturation to +10. Tick the Inside button. Draw an ellipse to select the brighter sky and darken it. You can drag outside the ellipse to rotate it. The centre of the ellipse creates a stronger adjustment than the edges. Click Done. ■

GET THE FILES HERE: http://bit.ly/PMZ34



Do even more with Camera Raw

Camera Raw isn't just for correcting tone- and colour-based problems. Discover a host of powerful photo-fixing and processing tools

On the previous pages we used a selection of toolbar-based tools and Basic panel sliders to reveal missing tonal detail, create a balanced exposure and selectively adjust colour. These types of image adjustments are some of the most common, so tools such as the Crop tool and the Basic panel are close to hand. If you dig a little deeper into Camera Raw, you'll discover that there's much more you can do with a raw file. To the right of the Basic panel tab are nine other tabs. These enable you to process your raw files in practical and creative ways, so that you can spend more time working with your raw format files, which is always preferable to working with images in the main Photoshop editor. Raw files contain more information about colour and tone than JPEGs, so by editing in raw you can produce better-looking results than you would if processing a JPEG version of the image in the main Photoshop editor. Therefore it's worth getting to know what these extra tabs have to offer.

One common challenge photographers face is to get key areas in focus. Panels such as Detail enable you to sharpen soft-looking images without adding artefacts such as noise. You can also use the Detail panel to reduce the presence of noise produced by fast ISO speeds or long exposures. You can also use Camera Raw's panels to reproduce classic darkroom processes such as black-and-white and split-toning. Check out the annotation on the right to introduce yourself to these powerful raw-processing panels. ■

Photoshop Anatomy Camera Raw panels

Get to know which panel does what in Camera Raw

1 TONE CURVE

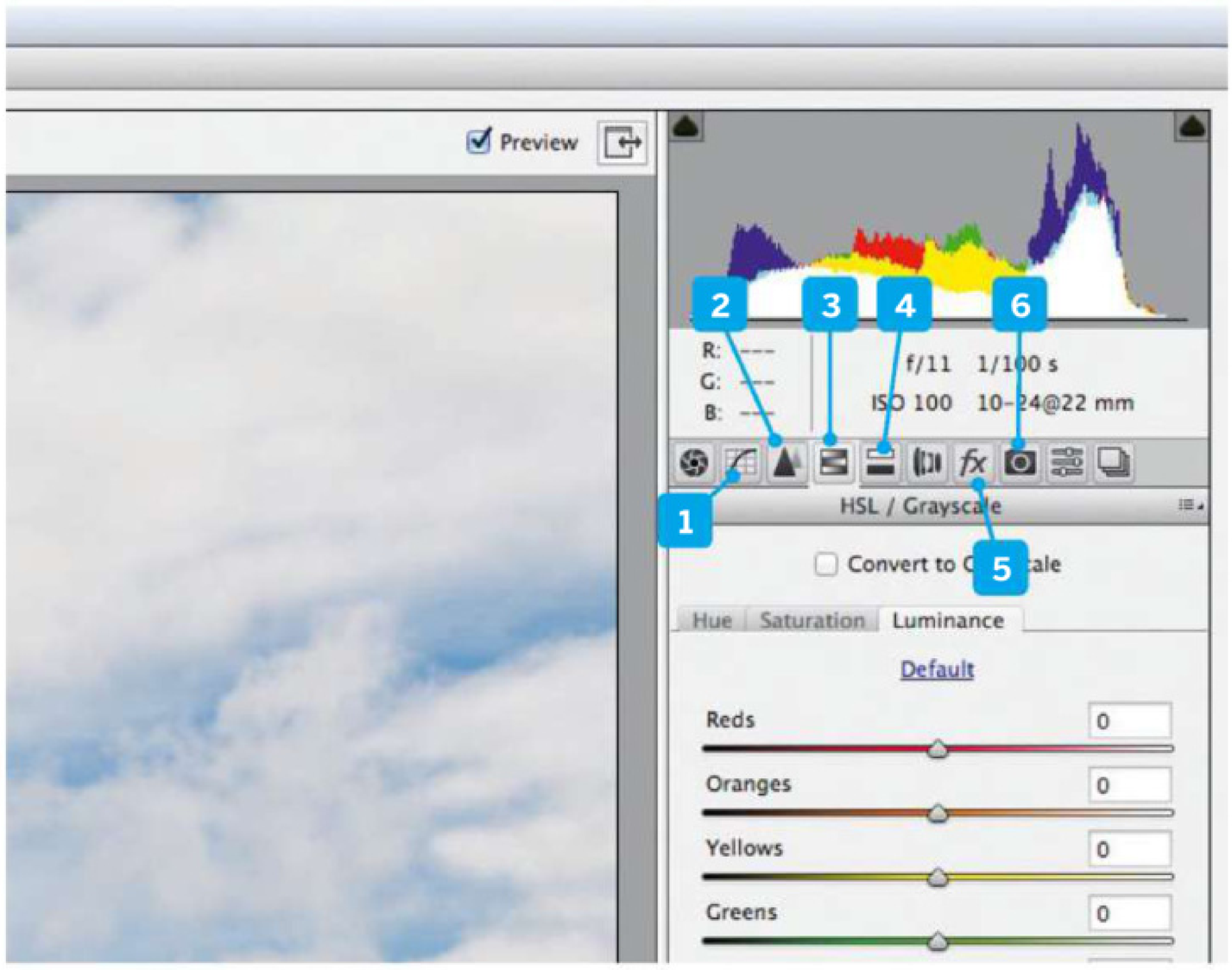
This Parametric panel provides an additional way to lighten or darken problematic areas using the appropriately labelled sliders. The Point panel enables you to access curve-adjusting presets that change the contrast in the image with a simple click, or you can place points on a curve manually and drag them to lighten or darken specific tones, just as you would with a Curves adjustment layer.

2 DETAIL

Many cameras soften an image as they process it to help avoid generating unwanted moiré patterns in the high-frequency parts of the image. By default the Detail panel applies a sharpening amount of 25 to give your pictures a bit more punch. This panel enables you to get a balance between sharpening detail while keeping image noise at bay.

3 HSL/GRAYSCALE

This panel enables you to selectively adjust the hue, saturation and luminosity of particular colours. It also enables you to produce effective black-and-white images by lightening or darkening greyscale tones based on the scene's original colours. Converting to monochrome in this way offers much more control than simply desaturating the image.



4 SPLIT TONING

After converting a photograph to monochrome using the HSL/Grayscale panel, you can use this panel's sliders to add separate washes of colour to the image's highlights and shadows to change the mood of the monochrome conversion.

5 EFFECTS

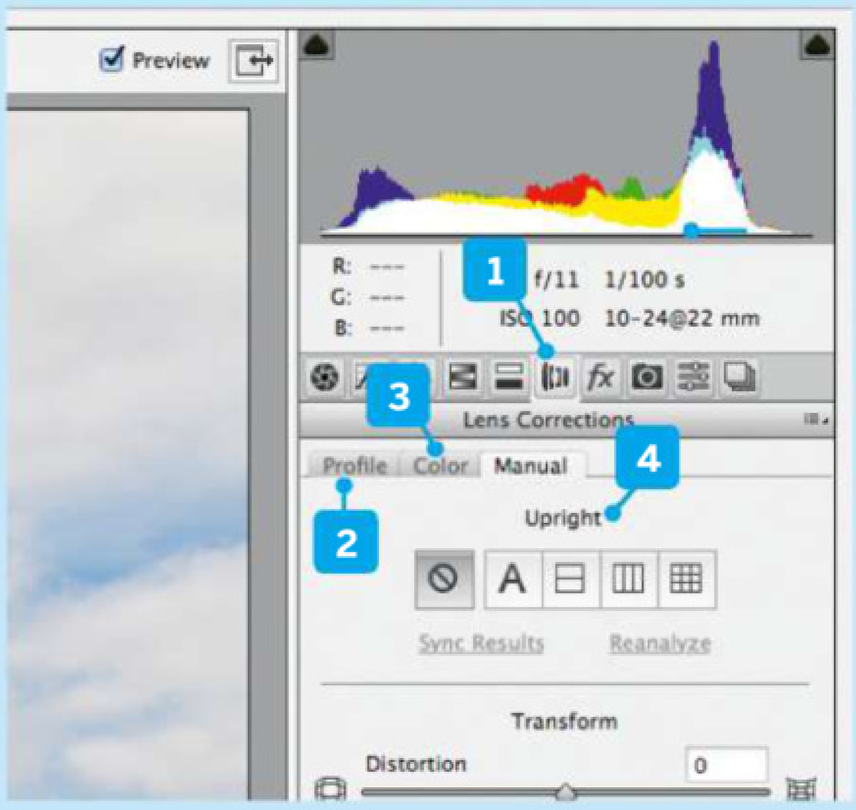
This panel enables you to texture your processed raw files with retro photographic artefacts such as film grain. This is an effective way of complementing a mono conversion. You can also add vignetted corners that will stay vignetted even after you crop the shot.

6 CAMERA CALIBRATION

Many cameras change the colours and tones of images using a range of scene modes such as Portrait or Landscape. The Landscape mode tends to boost natural colours such as greens and blues. You can experiment with different looks using this panel.

Understanding... LENS CORRECTIONS

Camera Raw enables you to tackle lens-induced artefacts, courtesy of its Lens Corrections panel **[1]**. The Profile tab **[2]** enables you to load the profile of the lens used to take the picture, so Photoshop can automatically counteract lens distortions and remove vignetting. The Color tab **[3]** enables you to remove chromatic aberration. The Manual tab's powerful Upright tools **[4]** help you to counteract horizontal or vertical distortions with a single click, or to manually transform the image using the sliders below.



SIDECAR XMP FILES

Another great thing about editing a raw file is the fact that you can't permanently change its original pixels. Therefore, you can't damage the file or spoil it. When you process a raw image such as a Canon camera-produced CR2 in Camera Raw, Photoshop creates a sidecar XMP file that stores all the Camera Raw slider settings used to adjust the image. When you reopen the image at a later date, this XMP file makes sure that the slider settings were as you left them. You can then continue fine-tuning the look of the raw file at your leisure, safe in the knowledge that you can't permanently destroy the data in the file.

GET THE FILES HERE: http://bit.ly/PMZ34

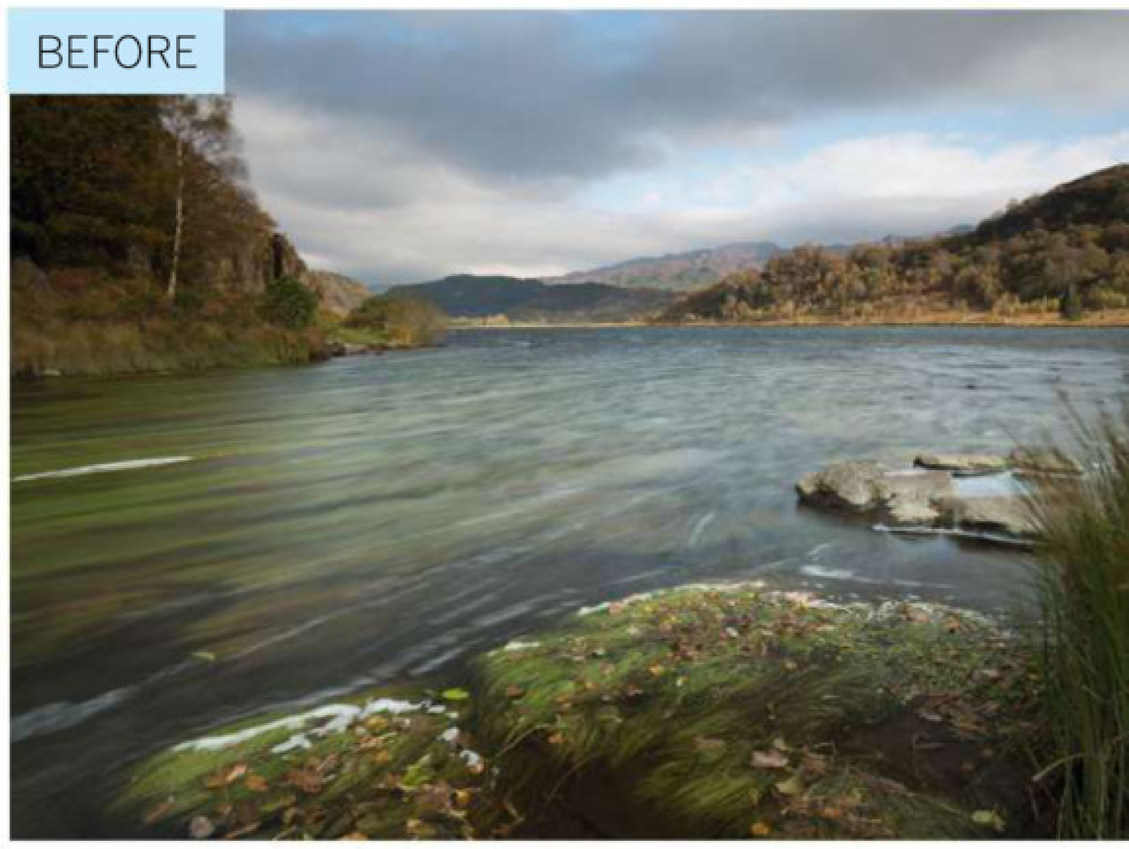
How to create and use presets

Store commonly performed raw adjustments as presets so you can apply them to other images quickly and easily

When shooting in JPEG format, your camera's Scene modes can dramatically adjust the subject's colours and tones. These in-camera adjustments are harder to counteract if you're editing a JPEG in Photoshop's standard editor. By shooting in raw format you can override the effect of a Scene mode, and experiment with a wider range of looks.

Camera Raw's Snapshot panel enables you to record the look of your image at any time during the editing session. If things take a turn for the worse, you can easily jump back in time by clicking an older Snapshot. The downside of Snapshots is that they aren't saved to disk when you close the raw file.

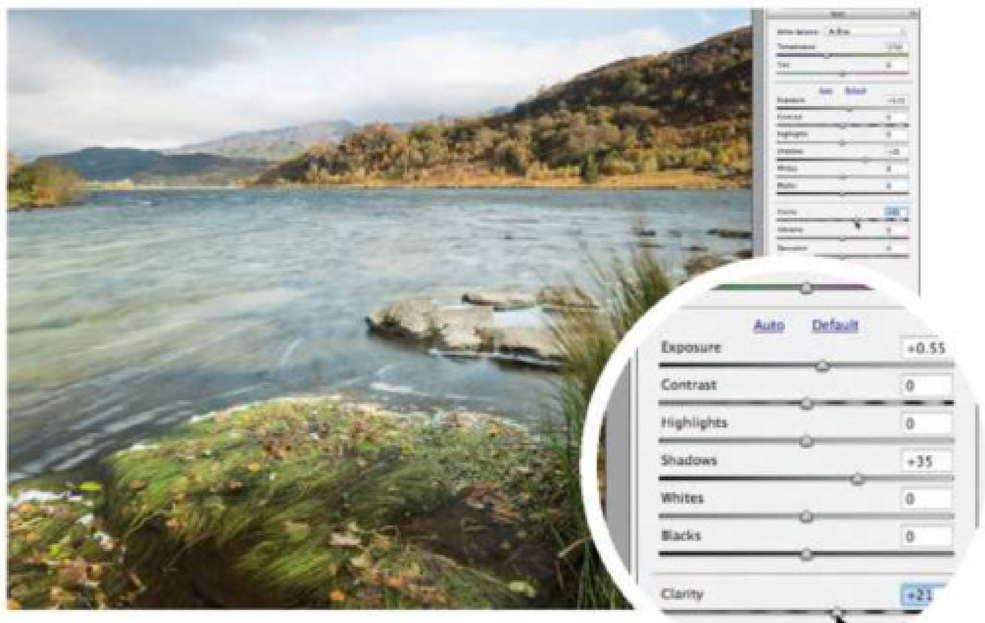
You may find that many images will benefit from a boost in contrast and an increase in colour saturation. This can lead to very repetitive editing sessions in which you manually drag sliders to increase contrast and boost colour saturation. To avoid repetitive and time-consuming raw-processing tasks, you can store typical adjustments as presets. These handy presets can then be summoned to tweak colour, tone and a host of other raw-processing attributes with a few clicks. And unlike Snapshots, Presets are permanently stored.





1 Open the image

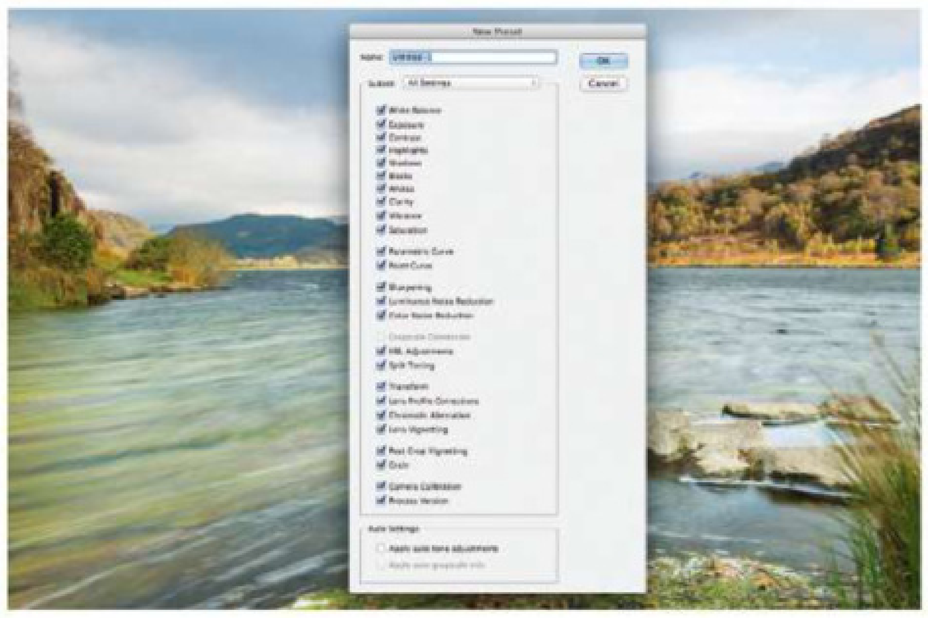
Open our TYCC05.dng starting image in Camera Raw. Like many unprocessed raw images, this image lacks detail in the shadows, and the colours are drab. We'll show you how to create a preset for similar-looking landscape images that improves the shadows, contrast and colours.



2 Increase the contrast

Brighten the overall image a little by dragging the Exposure slider to +0.55. Lighten the under-exposed shadows and reveal more detail by increasing Shadows to +35. Tease out more texture in the midtones of the image by increasing Clarity to +21. Now the image has more impact.





3 Enhance the colours

Draw attention to the vegetation by boosting Vibrance to +40. This selectively boosts the saturation of typical landscape colours without over-saturating any skin tones that may be present. Click the Presets tab. Click the New Preset icon at the bottom of the tab.



4 Store your preset

You can record every adjustment you've made by leaving all the boxes ticked. Or you can fine-tune your preset by clearing settings that may not be applicable to other photos. Label your preset and click OK. Apply the edits to similar landscape images by clicking the preset. ■


Photoshop File Edit Image Layer Type Select Filter 3D View Window Help
Adobe Photoshop CC



Essential tools

Heal, patch and clone, dodge and burn, improve composition and much more with the Tools panel

36 Introducing the Photoshop Tools panel
Discover how to access and use Photoshop's comprehensive collection of image-editing utilities in the Tools panel

38 Remove small flaws from your photos
Erase unwanted objects and enhance your subject's complexion using Photoshop's intelligent image-retouching tools

42 Improve tones with the Dodge and Burn tools
Discover how to make selective brush-based adjustments to the tones of a photo using the Dodge and Burn tools

44 Master Photoshop's Pen tool
Isolate a complex object from a busy background using the mighty Pen tool – it's easier to use than you think!

48 Crop and resize your photos
Improve the composition of your photos with a better crop, or resize them for better-quality prints

GET THE FILES HERE: http://bit.ly/PMZ34

Introducing the Tools panel

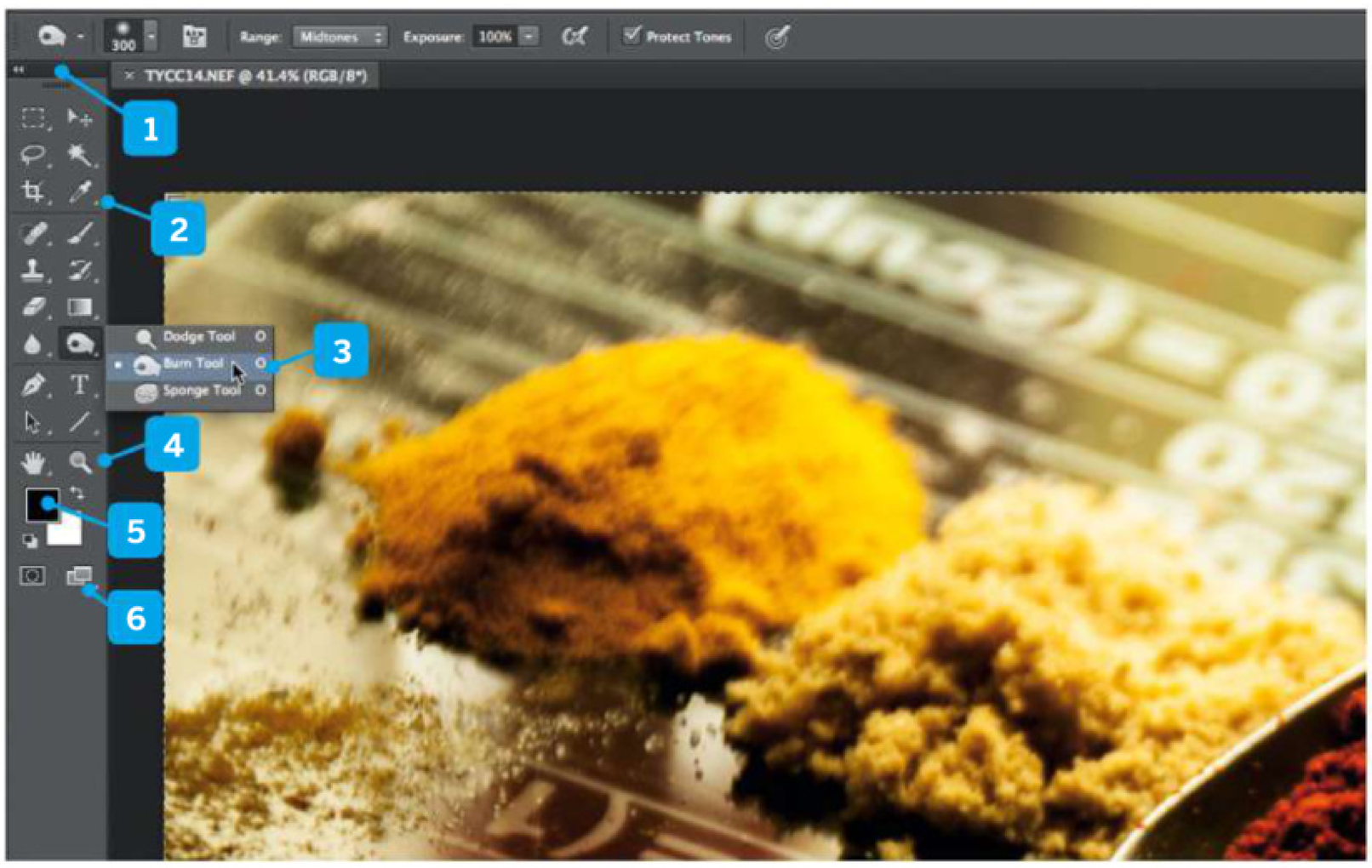
Discover how to access Photoshop's comprehensive collection of image-editing utilities in the Tools panel

A traditional darkroom photographer had a suite of tools to call upon when processing images, such as bits of card that enabled selective lightening (dodging) or darkening (burning) of parts of a picture. Other tools included an enlarger that equipped the photographer to produce prints of specific sizes. Photoshop has a vast suite of equivalent darkroom tools to help us process a picture, or to crop them to improve composition, for example. In the darkroom a photographer might use a brush to paint over unwanted objects. We can mimic this challenging retouching task more easily in Photoshop's digital darkroom, thanks to features such as the Clone Stamp tool.

Photoshop has a wide range of image-editing tools packed into panels and buried in menus and sub-menus. The most useful tools are collected in the Tools panel, which you'll find on the left-hand side of the workspace. This panel is docked to the edge as a single vertical column, but you can undock it and make it float closer to hand as a more compact two-column panel. Check out our annotation to get to know the key players in the Tools panel. ■

At a glance Tools of the trade

Learn how to uncover more tools and discover the key components of the Tools panel



1 EXPAND AND FLOAT

Click this little icon to toggle between a long, single column of tools, or a shorter panel containing two columns. You can also undock the panel.

2 COMPARTMENTS

The Tools panel has 20 compartments. To keep the panel at a manageable size, many related tools share a compartment.

3 TOGGLE THE TOOLS

The Tools panel contains 66 tools. Click and hold down the mouse on a compartment to reveal its contents, then click the tool you require.

4 ZOOM TOOL

The side-by-side Zoom and Hand tools work in conjunction with each other. They enable you to zoom in and pan around your picture to examine and edit specific areas. Tap Z to summon the Zoom tool or H to switch to the Hand. Double click the Zoom tool to magnify the image by 100%.

5 FOREGROUND COLOUR

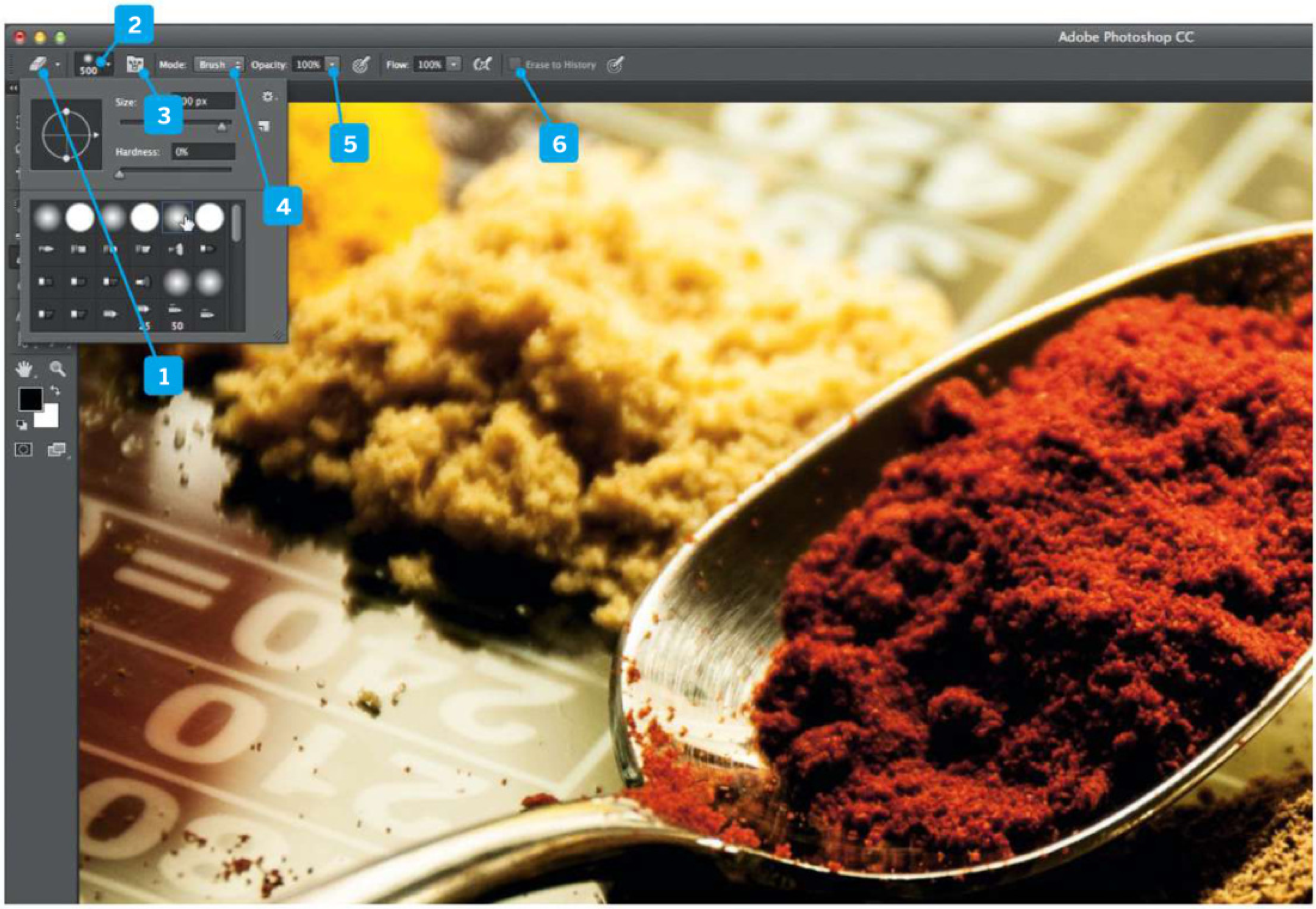
The default foreground and background colours in the Tools panel are black and white. Click the black or white swatch to change the colour. Press D to go back to the default colours. These swatches are useful for tasks such as painting on layer masks.

6 SCREEN MODES

Click here to access the screen modes. Full Screen mode hides all the panels so you can focus on a clutter-free image. Minimised panels will slide into view when you move the cursor to the edges of the workspace. Press F to toggle between the screen modes.

Photoshop Anatomy The Options bar

Discover how to modify the behaviour of the currently active tool



1 TOOL PRESETS

After selecting a tool you can use the Options bar to edit attributes and modify the way the tool behaves. Click the Tool Preset picker to discover other versions of the selected tool. You can save your own customised presets here too.

2 BRUSH PRESET PICKER

Many tools, like the Eraser, are brush-based. The Brush Preset picker in the Options bar enables you to quickly modify the size and softness of the tool's brush tip to change the way it alters the pixels in the image.

3 BRUSH PANEL

This icon opens the Brush panel. This does a similar job to the Brush Preset picker, but you can change many more tool attributes such as the texture and its scattering properties. The Brush panel has a tab that opens the Brush Preset picker.

4 MODE

You can click the Mode drop-down menu to change the way the brush tip behaves. By default our example tool (the Eraser) is set to Brush, so it can paint with soft edges. You can change it to a sharper Pencil mode, or even a square Block.

5 OPACITY

This option enables you to reduce the intensity of the tool so you can perform more subtle edits. You can set a specific percentage, click the little triangle icon to activate a slider, or simply click and drag left or right on the Opacity label.

6 HISTORY

Some tools have unique options, such as the Eraser's Erase to History box. This enables you to make a global adjustment to the image. You can then tick this box and paint with the Eraser to remove the previously applied adjustments from specific

GET THE FILES HERE: http://bit.ly/PMZ34

Remove flaws from your photos

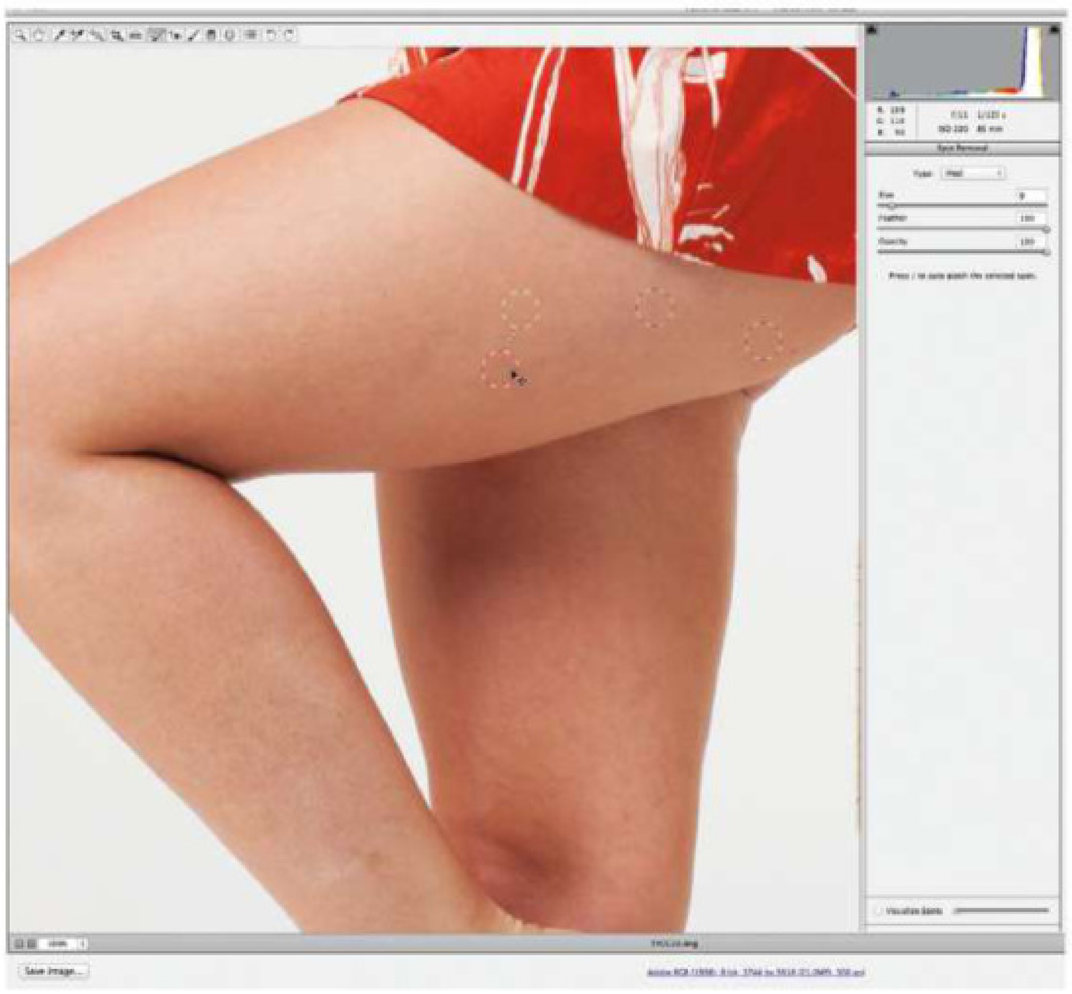
Remove unwanted objects and enhance your subject's complexion using Photoshop's image-retouching tools

If you keep clicking with the Zoom tool to the maximum magnification of 3200%, you'll see that every photograph consists of small square pixels. Photoshop enables you to change the look of a photograph by altering the properties of these tiny building blocks, such as their tone, colour, and even their positions. When it comes to retouching an image, Photoshop offers a host of tools that enable you to replace unwanted pixels with more appropriate ones. The Clone Stamp, Healing Brush and Patch tools all work in similar ways, by copying and moving pixels from one part of an image to another. In this walkthrough we'll put these related retouching tools through their paces to hide unwanted objects such as the white card and lighting rig on the right-hand side of our starting image. We'll also enhance the look of our model by removing distracting objects such as the hat's tassel, and quickly conceal spots and blemishes to create a more pleasing complexion.

The Clone Stamp, Patch, and Healing Brush tools do a similar job, but they each have their strengths and weaknesses, so we'll demonstrate how each tool can be best employed in our retouching walkthrough. This will help you to choose the right tool for a range of retouching challenges. Along the way you'll learn how to modify each tool's behaviour so that you can make it work more effectively on your own images. Some tools, such as the Spot Healing Brush tool, can be set to Content-Aware mode, so that they automatically sample appropriate pixels when retouching more complicated areas.

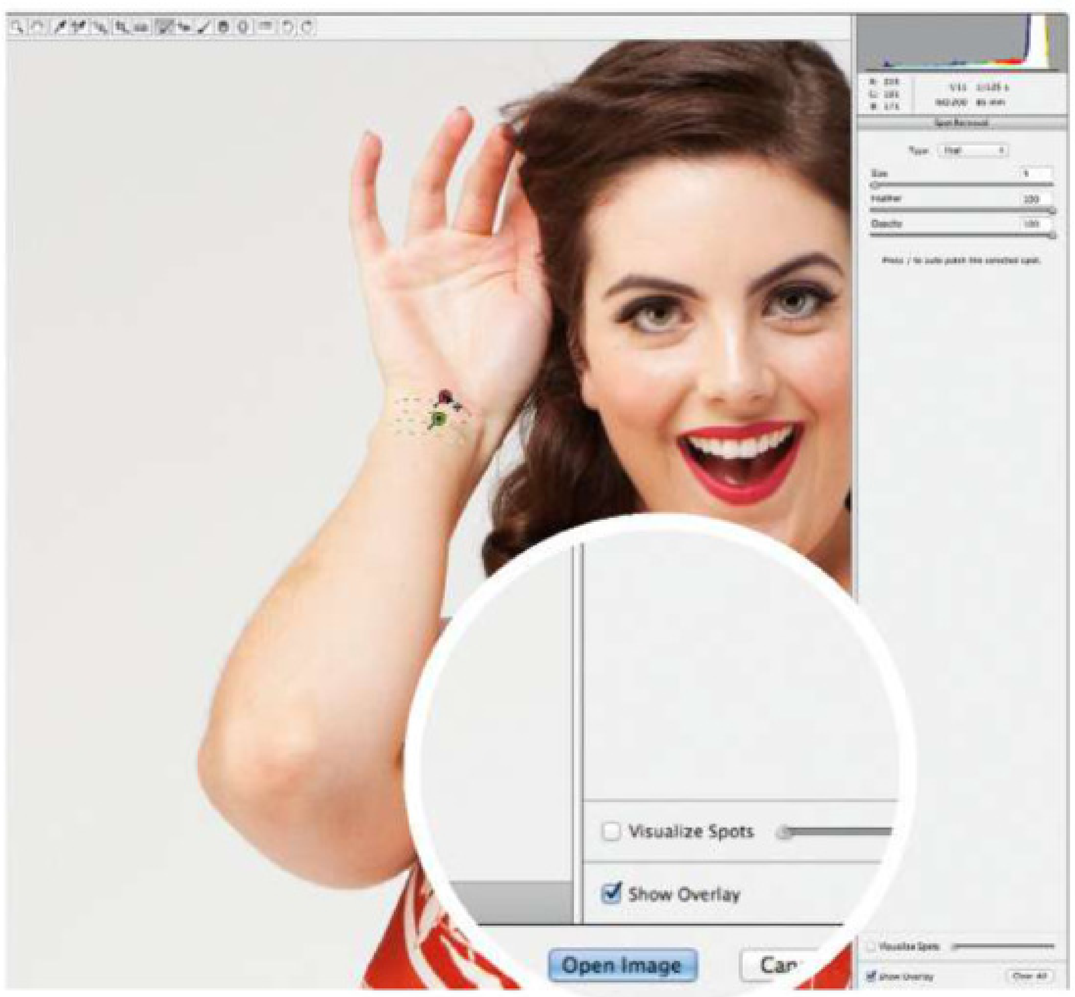






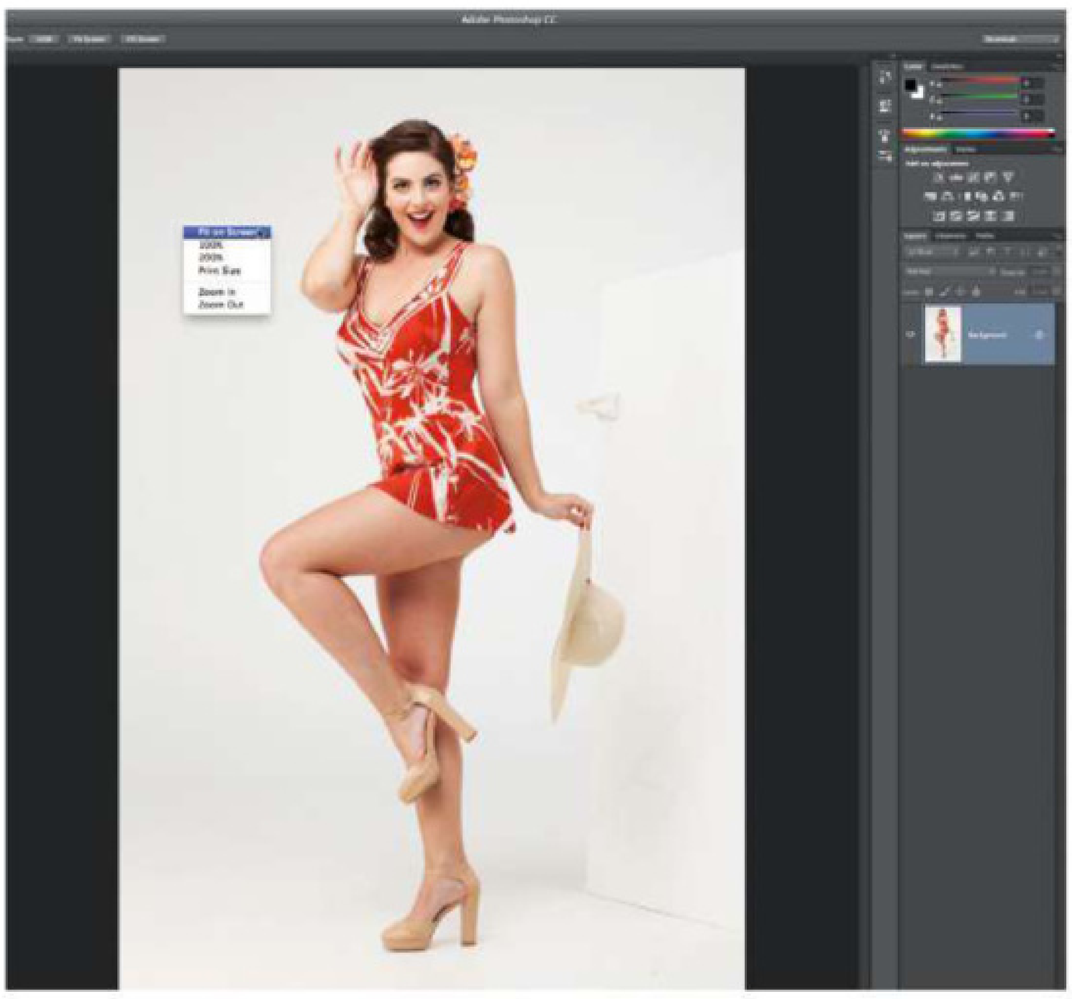
1 Remove a bruise

Open TYCC22.dng. This is a raw file so it will open in Camera Raw. Zoom in to 100%. Use the Hand tool to pan the image to the bruise on the model's thigh. Choose the Spot Removal tool. In the Spot Removal panel, set Type to Heal. This will blend transplanted skin with its new surroundings. Set Size to 9. Click the bruise to place a red overlay on it. A clear patch of adjacent skin – indicated by the green overlay – will be placed over the bruise.



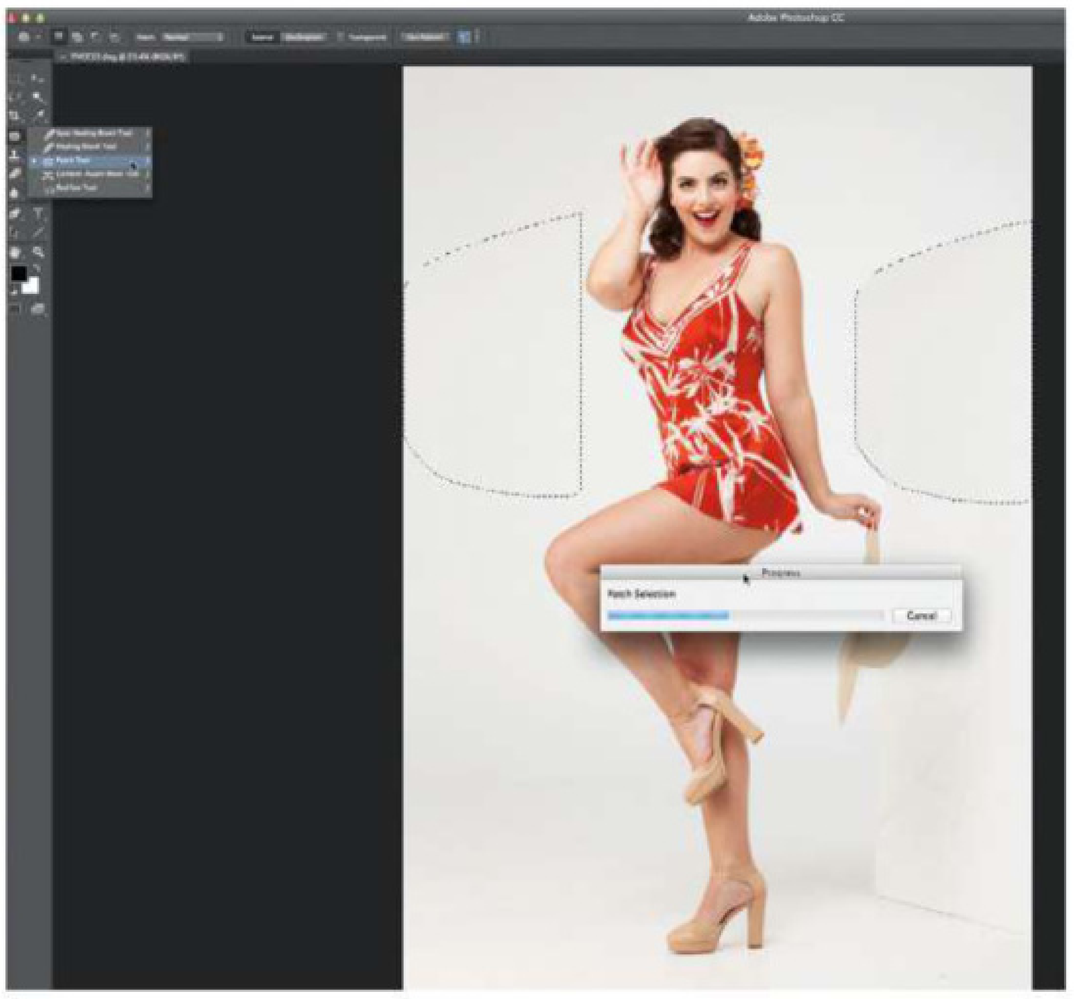
2 Remove the wrinkles

The Spot Removal tool excels at hiding small blemishes such as bruises and birth marks. If you click and drag the tool you can paint along wrinkles or creases in the skin to create a smoother-looking complexion. You can fine-tune the sampled areas and the edited areas by dragging the red or green overlays around. Clear the Show Overlay box to hide the distracting overlays to see how your retouching is shaping up.



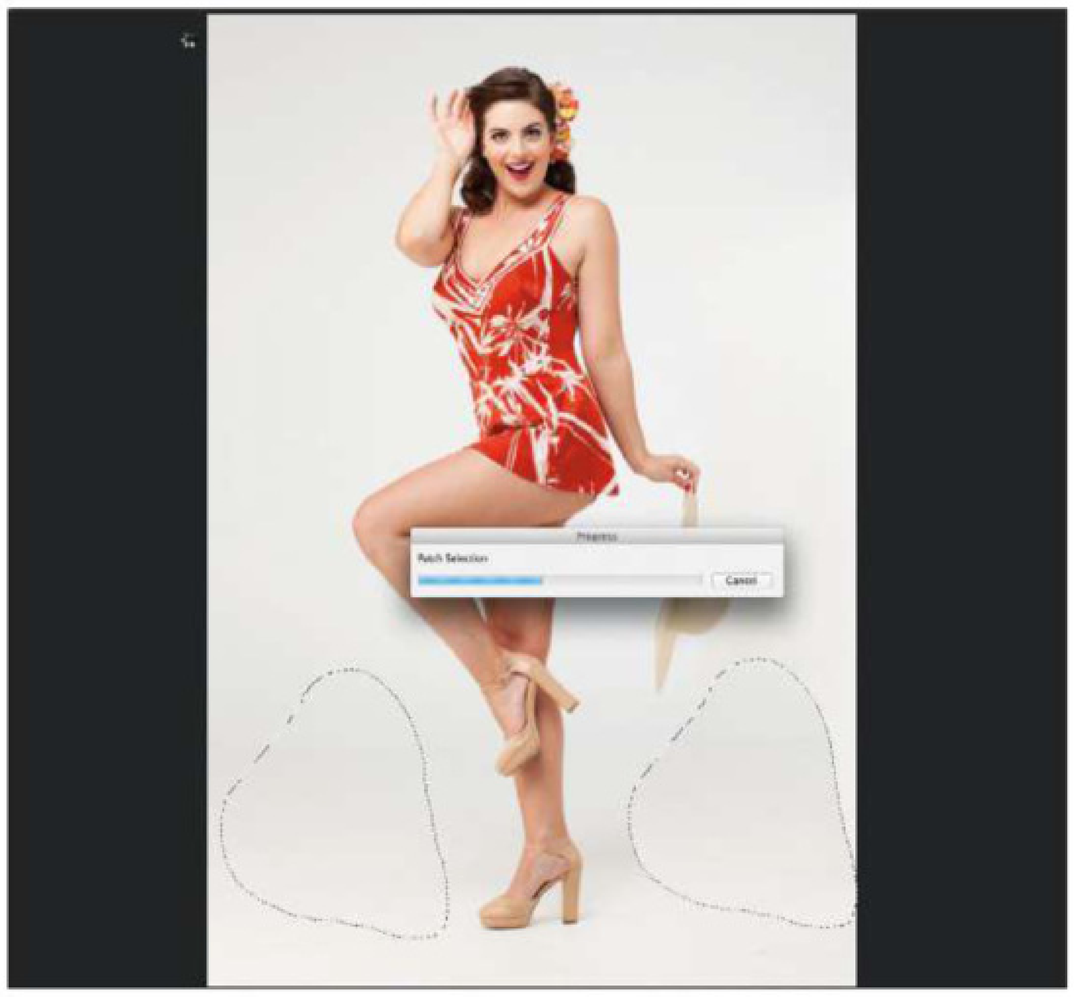
3 Open the image

The Spot Removal tool is fine for performing small retouching tasks, but to remove larger objects such as the white card backdrop and the lighting stand we'll need to call out the big guns. Click Open Image to take the image into the standard Photoshop editor. This will give you access to more retouching tools. Grab the Zoom tool and right click the image. Choose Fit On Screen from the context-sensitive pop-up menu.



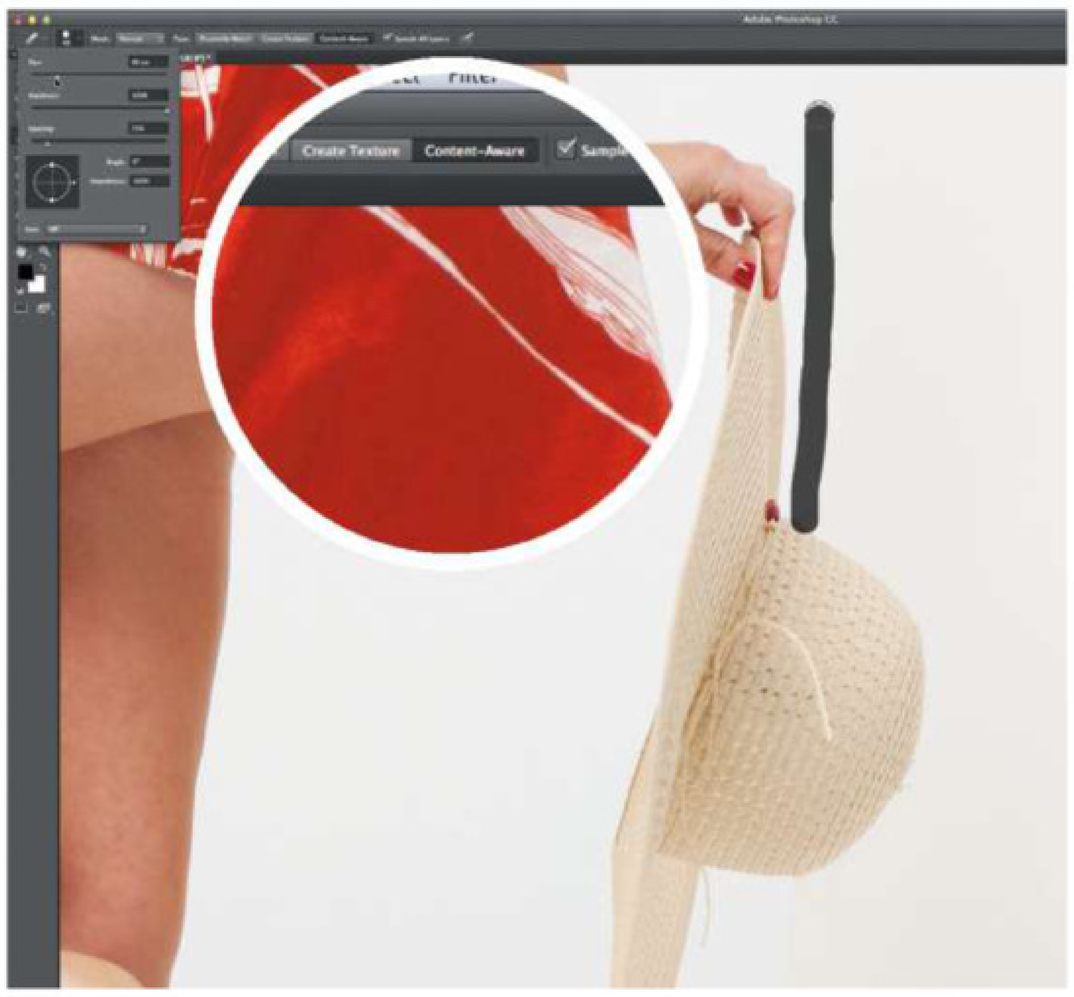
4 Patch out the card

Click and hold down the mouse over the compartment that holds the Spot Healing Brush tool to see the other tools that are stored there. Select the Patch tool. In the Options bar, click the Source button. Draw a patch around the top section of the white card on the right. Click inside the patch and drag left until a clean section of white from the left-hand side of the frame fills the patch. Watch out for tonal inconsistencies.



5 Make another patch

After transplanting clean white pixels from the left-hand side of the frame into the right, the Patch tool seamlessly blends them with their new surroundings. This helps to hide the card. Draw another patch around the lower section of card and again drag it to a clean section on the left-hand side of the image. This will remove most of this white studio reflector. Zoom in to take a closer look at the remaining bits



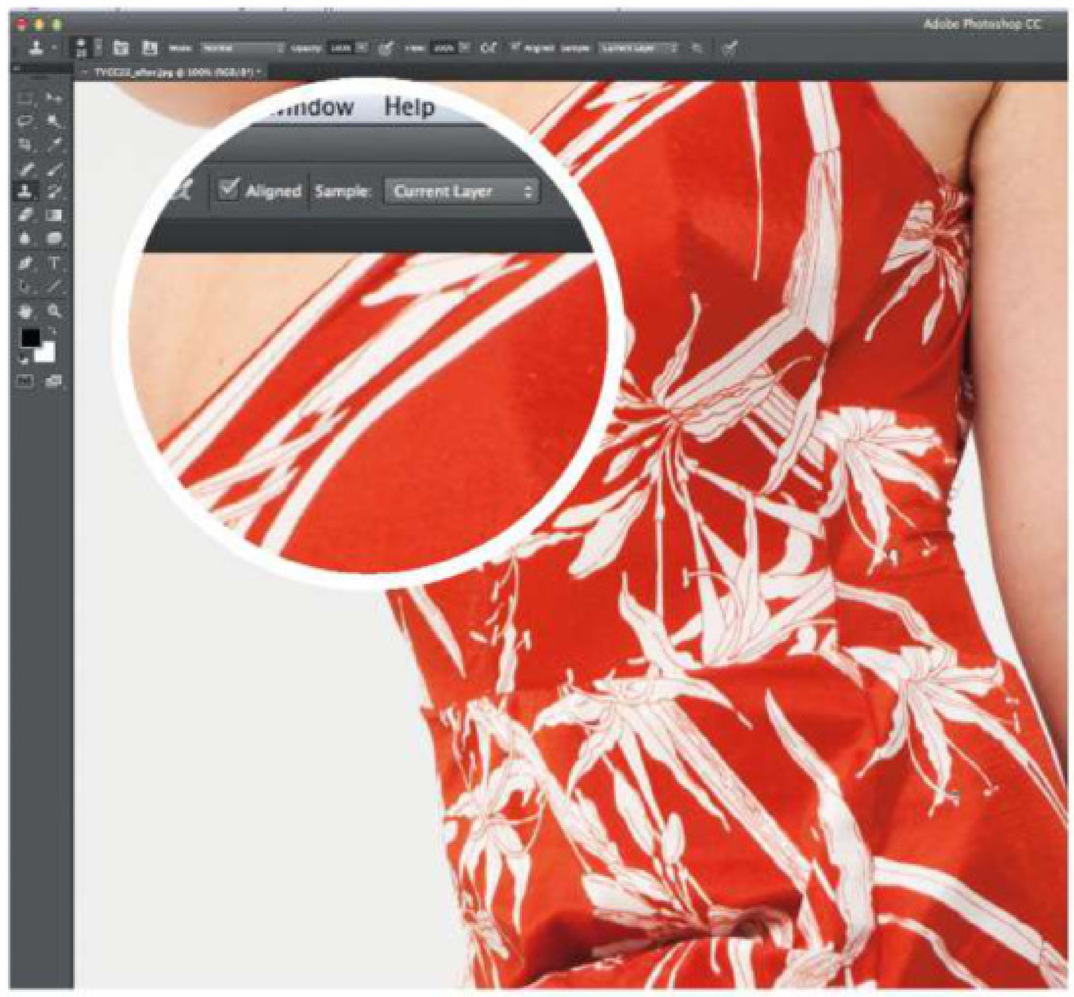
6 Use Content-Aware

Grab the Spot Healing Brush tool. If you leave this tool set to the Proximity Match option it will behave like Camera Raw's Spot Removal tool and automatically select adjacent pixels. This risks sampling and cloning bits of hat over the remaining card edge. Tick Content-Aware instead. Click the Brush Preset picker and choose a brush tip with a size of 40. Press Cmd/Ctrl+D, then paint over the remaining card edges a few times to replace it with white pixels.



7 Tidy up the loose ends

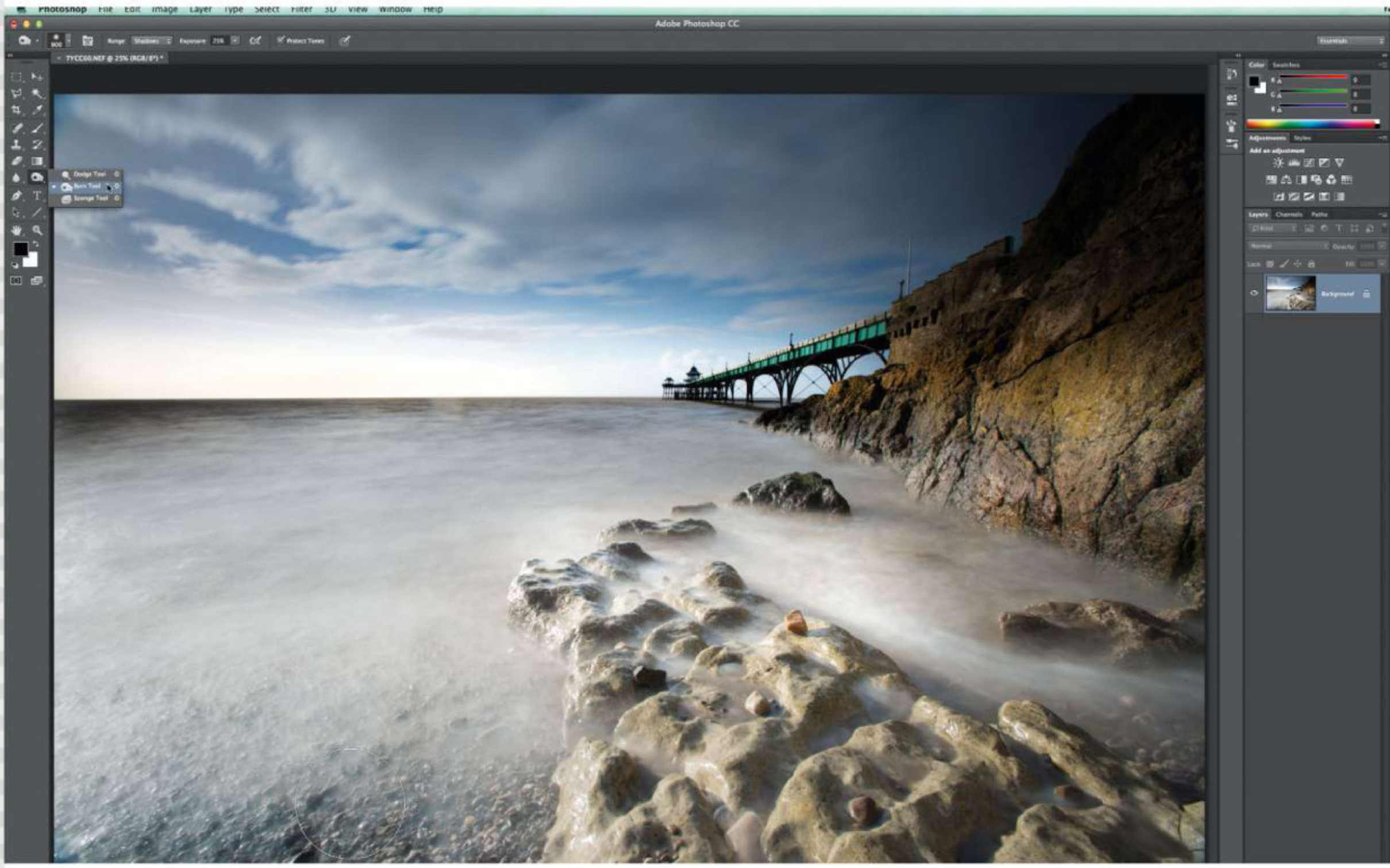
Dab the Spot Healing Brush tool over any scuffs and scratches on the studio floor to automatically replace them with neighbouring whiter pixels. Reduce the Size to 25. Paint over the stray string that overlaps the hat, and the Spot Healing Brush tool will find and replace the target pixels with a suitable hat texture. It even knows where the hat ends and the backdrop begins, so you can remove the string at the edge with a stroke.



8 Clone the pattern

The Clone Stamp tool does a similar job to the Patch and Spot Healing Brush tools, but it doesn't heal the transplanted pixels. Grab the Clone Stamp tool. Choose a soft brush tip. Tick Aligned so that the sampling cross-hair maintains the same relative position to the brush tip. Set Sample to Current Layer. Alt-click to sample the pattern on the dress. Paint to clone the sampled pattern to a new location. ■

GET THE FILES HERE: http://bit.ly/PMZ34



Dodge and burn to improve tones

Discover how to make selective brush-based adjustments to the tones of a photo using the Dodge and Burn tools

Digital cameras use multiple points to meter the lighting of a scene. If you shoot a subject against a bright sky, the camera may set the exposure to capture detail in the brighter areas, causing the darker sections to under-expose. Alternatively, the camera may expose a landscape to capture detail in the darker terrain, causing the sky's highlights to over-expose. The Dodge and Burn tools enable you to increase contrast or reveal more tonal detail, without adjusting the exposure of the scene as a whole.

Photoshop's Dodge and Burn tools derive their names from traditional darkroom techniques. Negatives were developed by shining light from an enlarger onto a piece of light-sensitive paper. By placing a piece of card between the light source and the paper, you could cast a shadow on a specific part of the print. The shaded (dodged) area received less light than the rest of the paper so it would remain lighter. To darken (burn) tones in another part of the print, you needed to protect (or mask) the rest of the photo paper with a larger piece of card that had a hole cut in it. The longer exposure time would darken the unmasked region.

Darkroom-based dodging and burning was a tricky process. To stop the card from casting a harsh shadow, you needed to waggle it. Thankfully, Photoshop's Dodge and Burn tools are much easier to control... ■

Photoshop Anatomy Dodge and Burn tools

Get to know Photoshop's dodging and burning options

1 TOOL COMPARTMENT

The tone-targeting Dodge and Burn tools share the same Tools panel compartment. To select one of the tools within, click and hold down the mouse to open the sub-menu. Press Shift+O to cycle between them. This command will also summon their colour-boosting or absorbing cousin, the Sponge tool.

2 RANGE

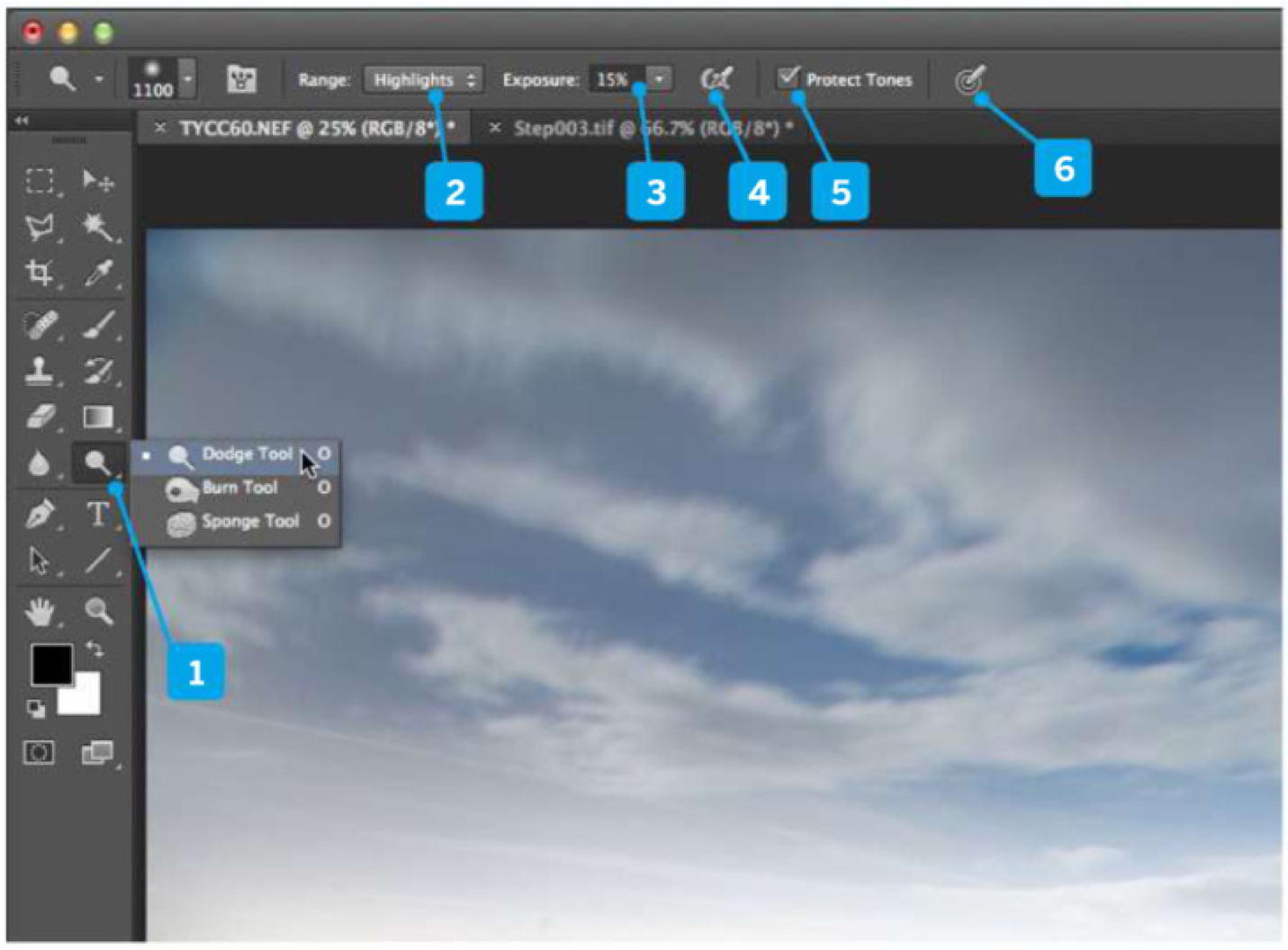
You can force the Dodge and Burn tools to target and adjust specific tones by choosing Shadow, Midtones or Highlights from the Range drop-down menu option. This gives you much more selective control, and means you can paint more quickly because you don't have to worry about 'going over the line'.

3 EXPOSURE

By using a low Exposure setting you can dodge or burn in gentler and more controllable increments. This enables you to avoid clipping (under-exposing) shadows as you burn, or blowing out (over-exposing) highlights as you dodge.

4 AIRBRUSH MODE

This mode enables you to use a pressure-sensitive stylus to vary the strength of your adjustments when dodging and burning. This helps you to lighten or darken specific areas in a more intuitive way.



5 PROTECT TONES

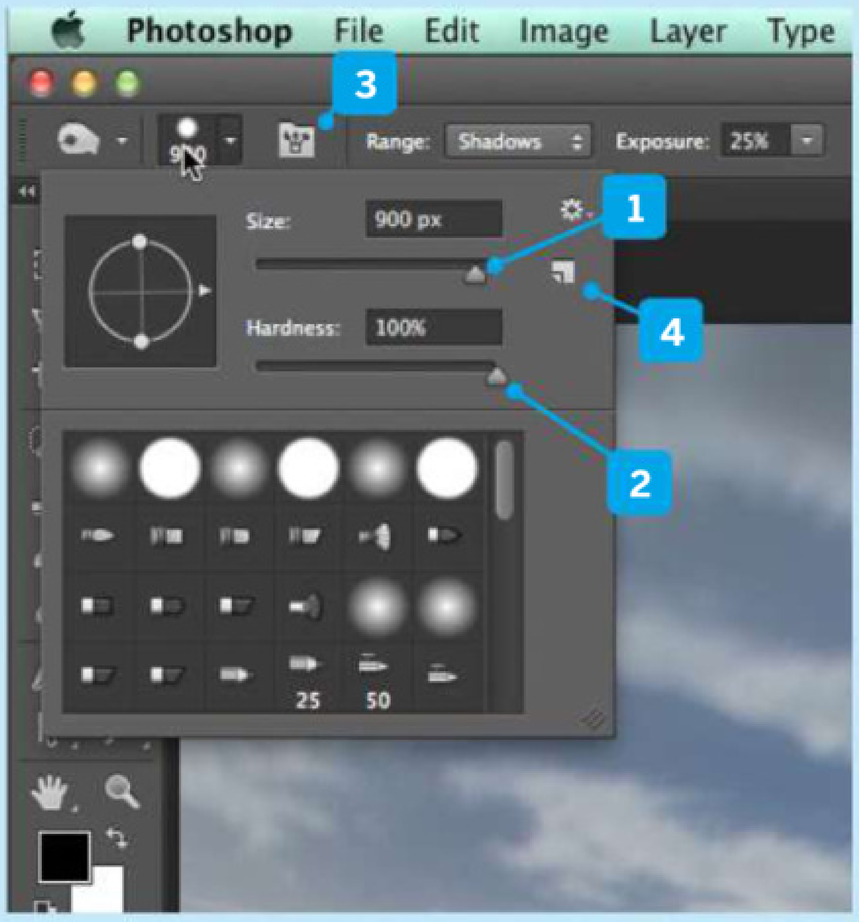
Keep this box ticked to help minimise the amount of clipping produced by the Dodge and Burn tools. It also helps to preserve the colours in the edited areas.

6 TABLET PRESSURE

By ticking this option you can use a pressure-sensitive stylus to change the Dodge, Burn or Sponge tool's brush size.

Understanding... THE BRUSH PRESET PICKER

Adjust the size of the Dodge, Burn or Sponge tool **[1]** to cover wider areas (such as a sky), or to tweak smaller areas. To help the edited pixels blend more effectively with their neighbours, drag the Hardness slider **[2]** to the left. This creates a more soft-edged adjustment. Click this icon **[3]** to preview the edited brush tip's shape in the Brush panel, and see how soft or hard its edge is. To preserve and reuse a particular combination of Size and Hardness, click the new preset icon **[4]**. Give your preset brush tip a name. You'll find the saved tip by scrolling to the bottom of the Brush Preset picker.



NON-DESTRUCTIVE DODGING AND BURNING

If you paint with the Dodge and Burn tools directly on a photograph, you'll permanently lighten or darken its pixels. For more editing flexibility, choose Layer>New>Layer. In the New Layer window, set the Mode drop-down menu to Overlay. Tick the Fill with Overlay-neutral color (50% gray) box. Click OK. You can now paint with the Dodge and Burn tools on this new layer to lighten or darken the tones on the image layer below. You can reduce the opacity of this non-destructive dodge-and-burn layer to experiment with more subtle tonal adjustments. If you make a mistake, simply delete the layer and start again. The original image will be intact.

GET THE FILES HERE: http://bit.ly/PMZ34



Master the Pen tool

Isolate a complex object from a busy background using the mighty Pen tool – it's easier to use than you think!

As we mentioned earlier in the chapter, digital images are made up of millions of tiny square pixels. These building blocks of colour and tone combine to create the illusion of reality. Pixel-based images are called bitmaps.

Photoshop also enables you to produce content from scratch using tools such as the Pen tool. This tool enables you to draw graphic components for design projects (such as an icon or logo, for example). The Pen tool uses mathematics to describe the vector shapes that it produces. A vector shape consists of a series of anchor points. Between these moveable points are curves that you can bend to change the filled vector shape. The vector shape's mathematical nature enables you enlarge a shape without any drop in quality, whereas a bitmap photo can look a bit fuzzy if you enlarge the image.

The Tools panel also has a collection of other vector-based tools such as the Rectangle and Polygonal tool, which provide primitive shapes that you can modify to enhance your graphic designs. The Custom Shape tool provides you with a number of preset shapes that you can use to complement your design projects.

As well as creating colour-filled shapes for designers, the Pen tool can also be used to create paths to help photographers edit images. Pen-produced paths can be converted into selection marquees. In our walkthrough we'll demonstrate how to modify the Pen tool's curves and anchor points to select the curved contours of the sports car in our starting image. You'll then be able to use the selection to protect the car while you clone out distracting background objects that overlap its edges.







1 Open the image

Go to File›Open and browse to TYCC61.jpg. Click Open. The JPEG file will open in the standard Photoshop editor. There are a few distracting elements in the background that we couldn't avoid capturing, but we can remove them with the Clone Stamp tool to create a cleaner scene. However, to avoid cloning over the car we need to isolate it. Click and hold the mouse down over the Pen tool's compartment and select the Pen tool.

2 Choose paths, not shapes

To make sure the Pen tool draws a path and not a filled vector shape, go to the Options bar and choose Path from the drop-down menu. Untick the Auto Add/Delete box. Press Cmd/Ctrl and the + key to zoom in. Click to place the Pen tool's first anchor point where the rear wheel intersects the chassis. Click to place a second anchor point near the first. A straight line (or path) will join the two points together.





3 Curve the path

As you place a third anchor point, click the mouse button and drag at the same time. This summons two bezier curve handles that enable you to create a curved path between the two anchor points. Don't worry if the curved path doesn't follow the edge of the car perfectly because you can fine-tune it later. Click to place a fourth anchor point and drag the curve handle to keep the path curving around the edges of the car.

4 Tight or loose

To draw a path around the sharper angles of the car's bumper, place a few points closer together. Once you get to the longer sweeping curves at the top of the car, click to place points further apart and drag to make the path follow these curved contours. The more confident you get with the Pen tool, the wider apart the anchor points can be. The bezier curve handles enable you to select complex curved shapes more quickly.



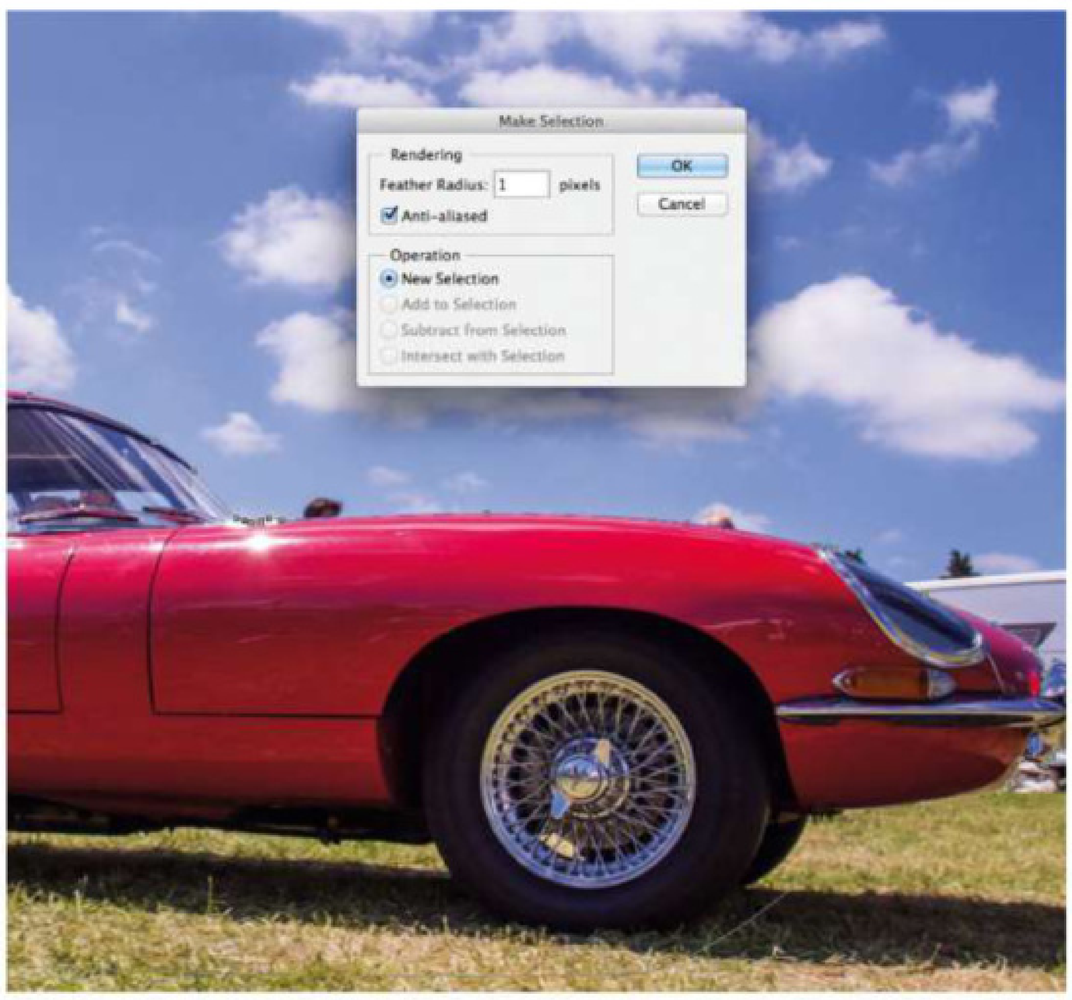
5 Close the path

Keep clicking to place more anchor points around the edges of the car. Try to be more precise when placing points along the top and sides of the car, but feel free to place more rough-and-ready points where the lower section of the car overlaps the grass because we won't need to clone out details in these parts of the image. To complete the path, place the last anchor point on the first one you started the path with.



6 Tidy up the path

At this stage, the path won't be perfect. To refine it, click and hold down the mouse button on the compartment below the Pen tool. Choose the Direct Selection tool. You can now drag any of the path's anchor points to fine-tune their positions. Drag the bezier control handles of an anchor point to adjust the adjacent curved path so that it follows the contours of the car more effectively.



7 Turn the path into a selection

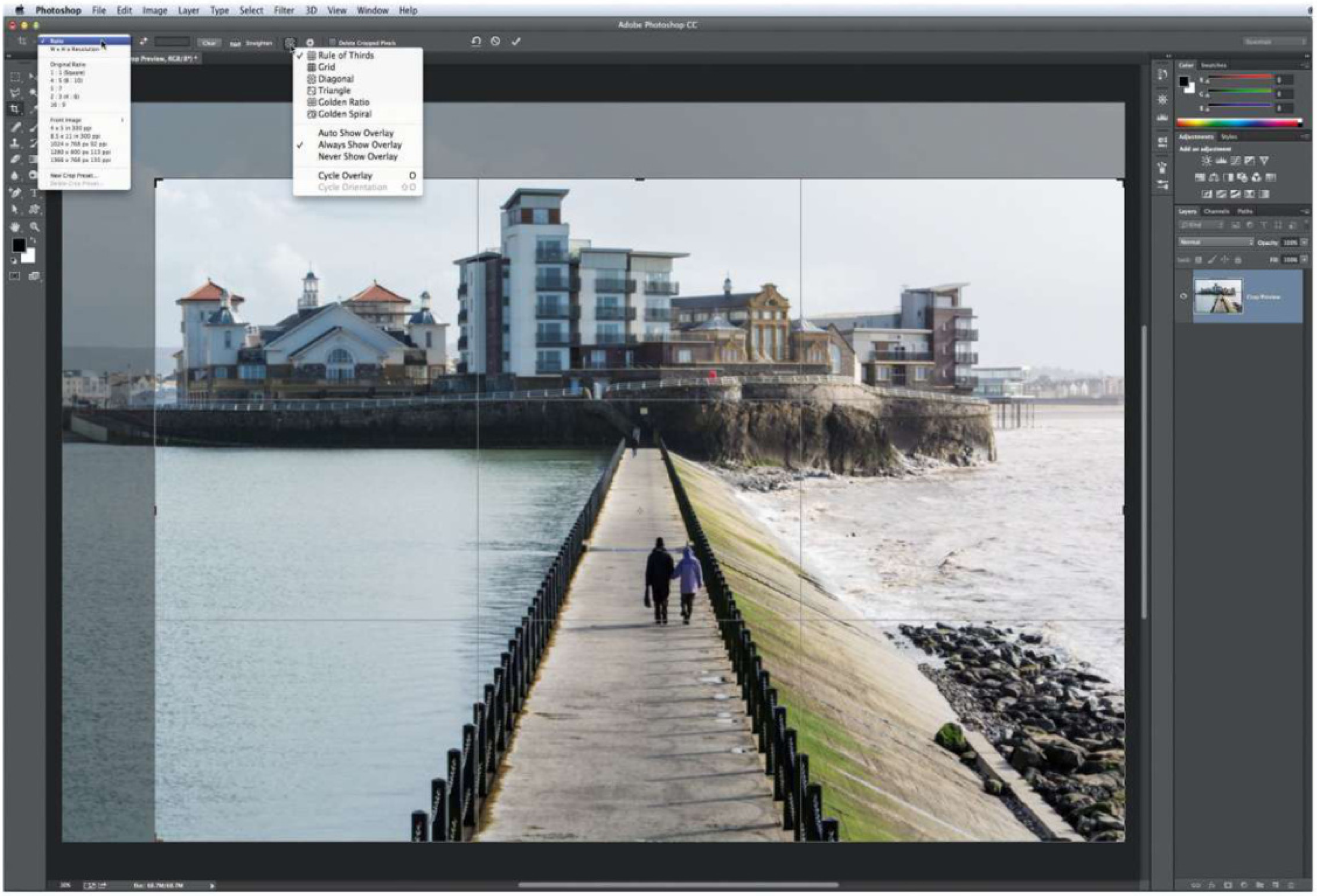
To select fiddly edges you may need to use the Add Anchor Point tool and click to insert more anchor points into the path. You can then use the Direct Selection tool to tweak the positions and bezier curve handles of the new points. Once the path follows the top and sides of the car, click the Pen tool icon. Go to the Options bar and click the Make Selection button. Set Feather Radius to 1.0. Click OK. A selection marquee will appear.



8 Clone out the background

Choose Select›Inverse to select the sky instead of the car. Grab the Clone Stamp tool. Choose a soft round tip from the Brush Preset picker with a Size of 200. Alt-click a patch of sky to sample it. Paint around the top and sides of the car to extend the sky over the unwanted people. The path-shaped selection will protect the car's edges from being cloned. Sample and paint grass to create a clean horizon. ■

GET THE FILES HERE: http://bit.ly/PMZ34



Crop and resize your photographs

Improve the composition of your photos with a better crop, or resize them for better-quality prints

When taking a picture on location you may not notice a distracting object at the edge of the frame. Thanks to the Crop tool you can remove distracting objects easily, without having to resort to fiddly cloning. The Crop tool also enables you to make certain objects look larger in the frame, saving you the cost of buying an expensive zoom lens.

The high resolution captured by the latest digital cameras gives the Crop tool much more information to work with. For example, a digital SLR such as the Canon 650D can capture images with dimensions of 5,184x 3,456. If you multiply these values together you get an image containing just under 18 megapixels. This large size produces an A3 size print at almost 300 dots per inch, which is larger than most people will require. Therefore, you can crop your images quite tightly and still produce a range of typical print sizes. This freedom to crop gives you much more control over the composition and content of the finished print. Indeed you can shoot at a wider angle safe in the knowledge that the Crop tool will enable you to choose a more effective composition in Photoshop.

You can set the Crop tool to improve composition and create an image with a specific size, such as a 5x7-inch print, at the same time. We'll also explain how to resize an image without cropping it, so you can avoid making fuzzy-looking enlargements. ■

Photoshop Anatomy The Crop tool

Improve composition and resize an image at the same time

1 RATIO

Click the Ratio drop-down menu to control the shape made by the Crop rectangle. Original Ratio enables you to give the cropped version of the image the same shape as the unedited version.

2 RESOLUTION

Before you start cropping, click here to choose presets that will automatically crop the image to fit specific print resolutions, such as a 4x5-inch print at 300 pixels per inch. Make sure you don't want to make any more edits to the image before you choose one of these options, however.

3 SWAP

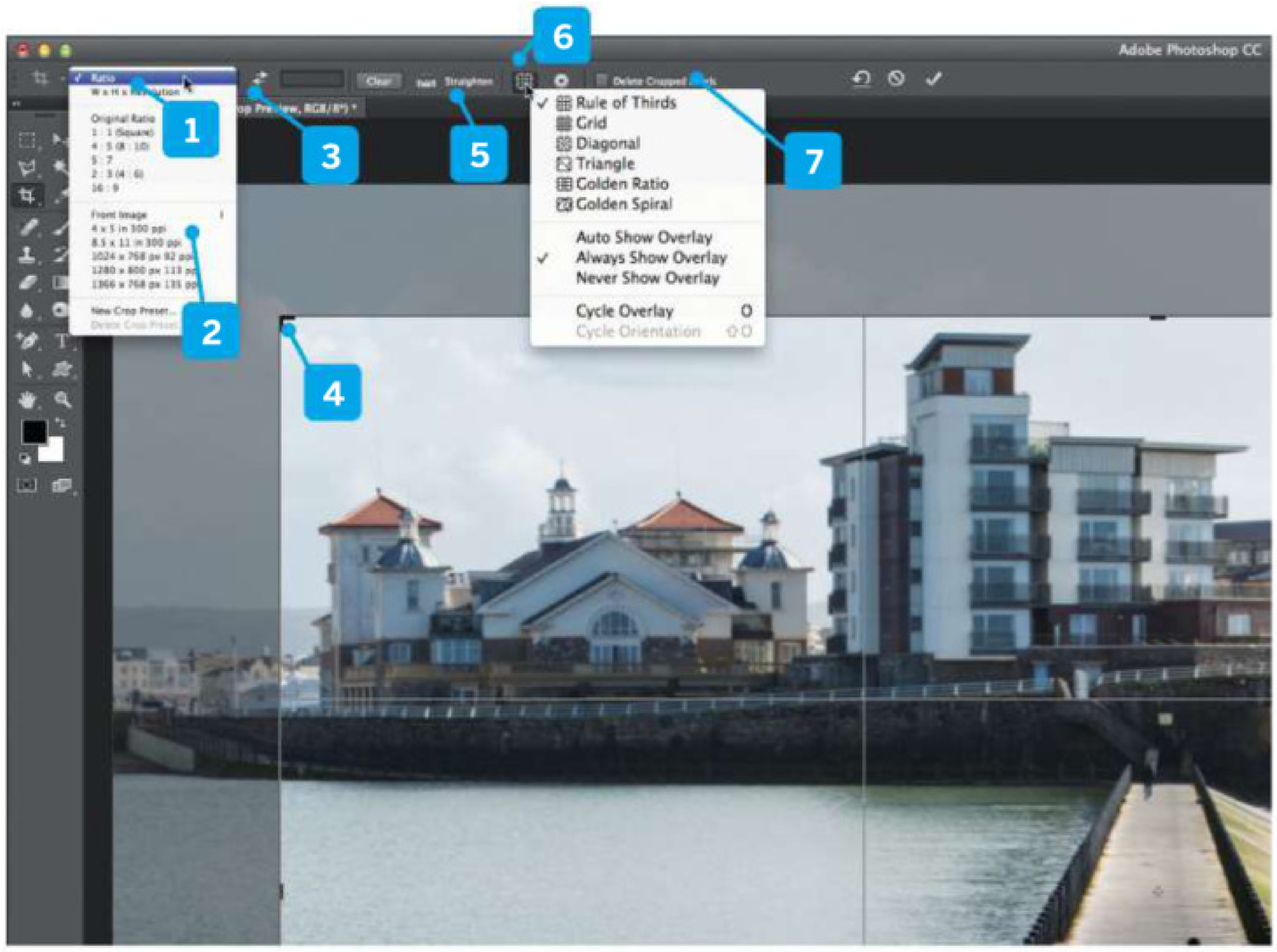
The crop rectangle has either a portrait or landscape orientation. You can turn a landscape-oriented image into a portrait-oriented image by clicking here to rotate the crop box.

4 CROP HANDLES

Drag a corner or side handle to crop the photograph. The crop overlay indicates which pixels will remain. The greyed out Crop Shield indicates which areas will be removed from the image.

5 STRAIGHTEN

This tool enables you to draw along a tilted horizon. It will then rotate the crop overlay to counteract the tilt.



6 CLASSICAL COMPOSITIONS

You can change the overlay's content to help your cropped image conform to classical composition guidelines, such as the rule of thirds or the golden ratio.

7 NON-DESTRUCTIVE

Photoshop CC's version of the Crop tool will preserve cropped pixels in case you need to restore them. You can make it automatically delete pixels outside the crop overlay by ticking this box.

Understanding... IMAGE RESIZING

To resize an image without cropping it, go to Image>Image Size. Our starting image has a Height of 13.33 inches and a Width of 20 inches, with a resolution of 300 pixels per inch. You can choose a new preset size from this drop-down menu **[1]**, or type the desired value here **[2]**. Keep this box **[3]** ticked to avoid squashing or stretching the resized image. If you increase the size of an image, Photoshop has to create new pixels to fill in the extra image space. It does this using a process called interpolation. To enlarge an image without it looking too fuzzy when seen from a normal distance, set this drop-down menu **[4]** to Preserve Details (enlargement).

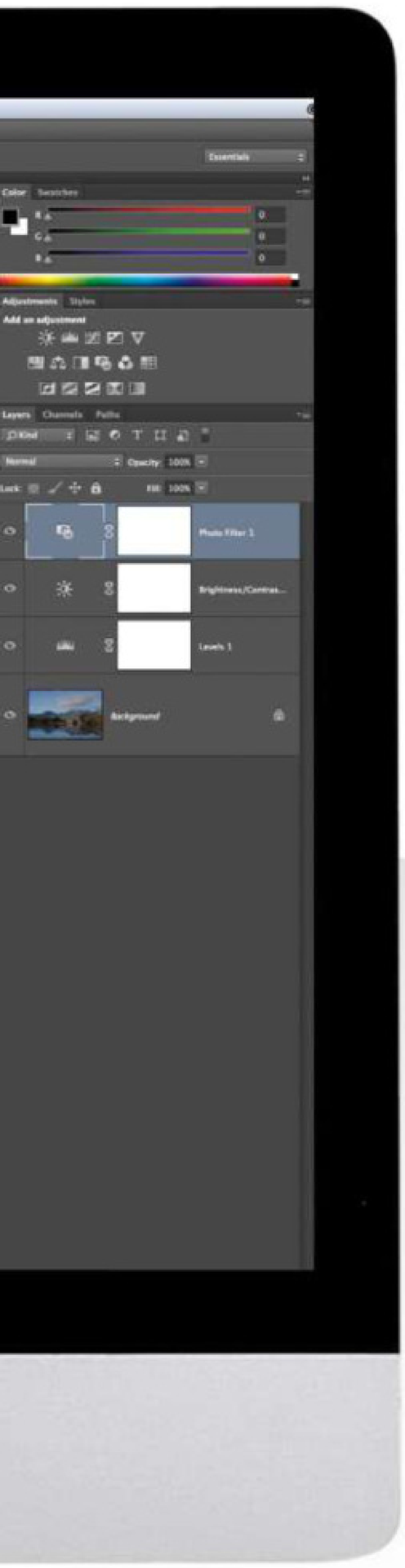


RESOLUTION MATTERS

Digital photographs are made up of pixels. Your computer's monitor displays each image using a resolution of 72 pixels per inch. Printers are capable of printing at much higher resolutions using dots of ink instead of pixels. If you print an image at 72 pixels per inch, your hard copy could lack fine details and look very pixelated, unless it was a huge print that won't be seen close up, such as an A1 or A0 poster. Fortunately, you can use Photoshop to increase the number of pixels per inch in the image when you scale down the file's width and height. For a good quality print, go for a minimum resolution of 200 pixels per inch. Alternatively, you can resample the image to increase the resolution without reducing the print size.

GET CREATIVE WITH LAYERS





Get creative with layers

Discover how to enhance and transform your pictures using Photoshop's most powerful feature

52 Introducing the Layers panel
The Layers panel is central to most creative photo projects. Here's how to get to grips with this essential tool

54 Harness the power of adjustment layers
Adjustment layers enable you to adjust colours, tones and more, either globally, or locally. Here's how they work...

56 Be creative with Blend modes
Discover the special effects you can create in moments by mixing different images together using one of Photoshop's 27 Blend modes

60 Organise your layers efficiently
Work faster with your image layers using these easy techniques for keeping the Layers panel organised

62 Add special effects using Layer Styles
Enhance your photos with embossed text using a Layer Style to add simulated depth and lighting effects

GET THE FILES HERE: http://bit.ly/PMZ34



Introducing the Layers panel

The Layers panel is central to most creative photo projects. Here's how to get to grips with this essential tool

When Photoshop appeared back in 1990, it lacked the ability to edit using layers. You could select and copy pixels from one image and paste them into another to create a montage. However, once you'd pasted an object, you couldn't reposition it later on. The composite image was flat.

It wasn't until the release of Photoshop 3.0 in 1994 that the Layers panel appeared. This revolutionised the way image editors could work. By pasting copied pixels onto a separate layer, you could reposition the layer's content at any time, and fine-tune the layout of your design with ease. You could also edit the colours and tones on individual layers, which provided more freedom and control.

Layers behave like a stack of transparent sheets. You can add content to each of the separate sheets in the stack, and see them from above as a composite image. In our annotated image we have a layered project that contains copied and pasted content from three separate source images. By placing the mountain and tree on individual layers, we can move, scale and transform them to produce an island levitating against an ocean backdrop on the background layer.

Layers can be modified to change the way they mix. Blend modes alter the way colours and tones in multiple layers combine. You can also mix layer content by changing a layer's opacity so that its pixels are translucent. ■

Photoshop Anatomy The Layers panel

Get to know the key features of the versatile Layers panel

1 FLOATING PANEL

Like our levitating island, the Layers panel can float anywhere in the workspace so that it's closer to hand. Just click its tab and drag it out of the panel dock. You can drag it back to the dock later.

2 LOCKED LAYER

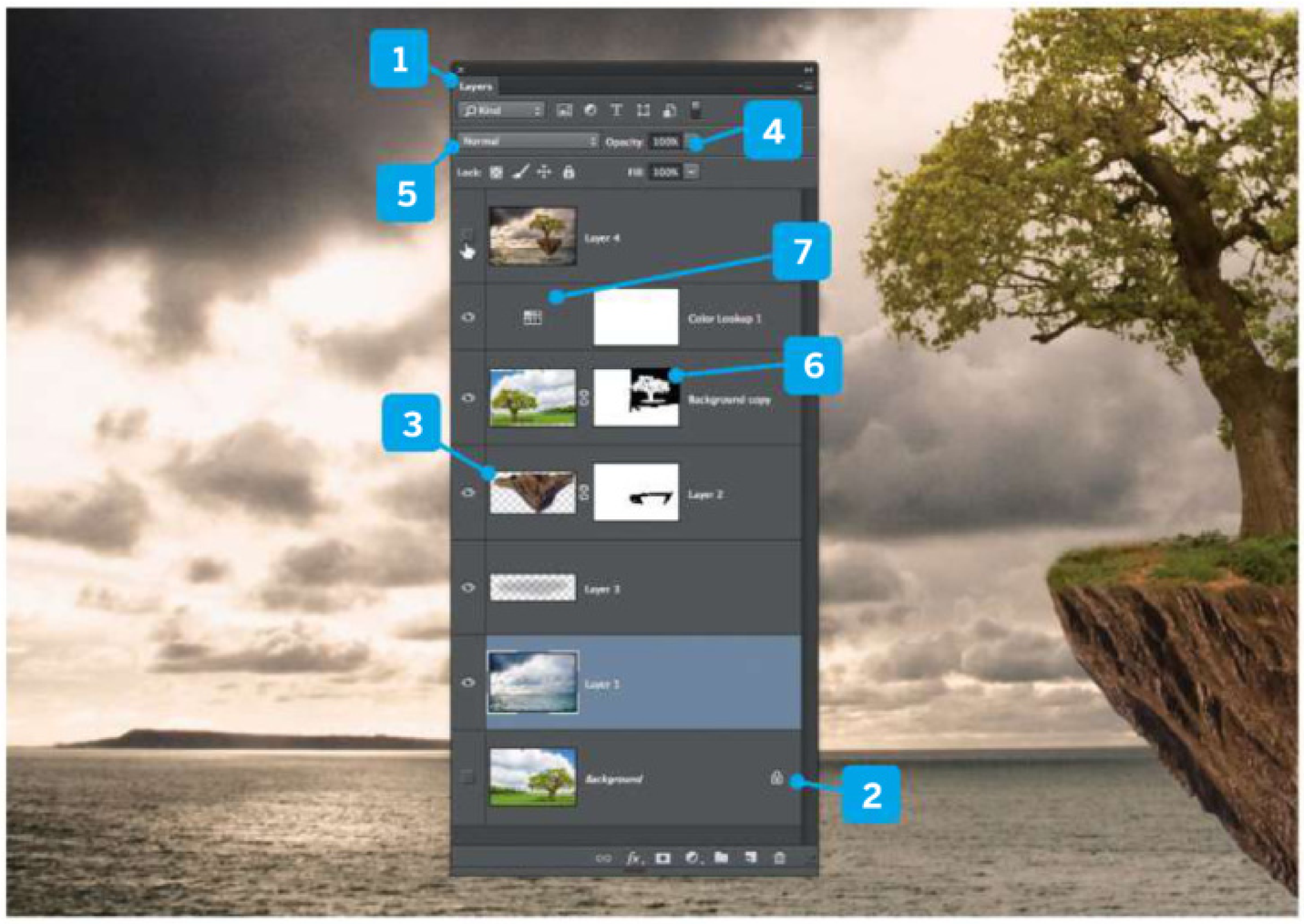
When you first open a photograph you'll see a single locked Background layer. You can double click the layer's thumbnail to unlock it, or select and copy its content onto a separate layer, as we've done here.

3 LAYER TRANSPARENCY

Each layer thumbnail provides a preview of the contents of the associated layer. Here we've copied a mountain and pasted it into this layer. The transparent sections of the layer are indicated by a pattern.

4 OPACITY

Once you've clicked a thumbnail to target the specific layer you want to edit, you can adjust its opacity to make it translucent. We reduced the opacity of Layer 3 to help the painted shadow overlap the ocean.



5 BLEND MODE

By changing Layer 3's Blend mode to Overlay, we were able to make the painted shadow darken the ocean's colours while preserving the lighter tones. This helps the shadow behave in a more realistic way. You'll use the Overlay Blend mode more than most others.

6 LAYER MASKS

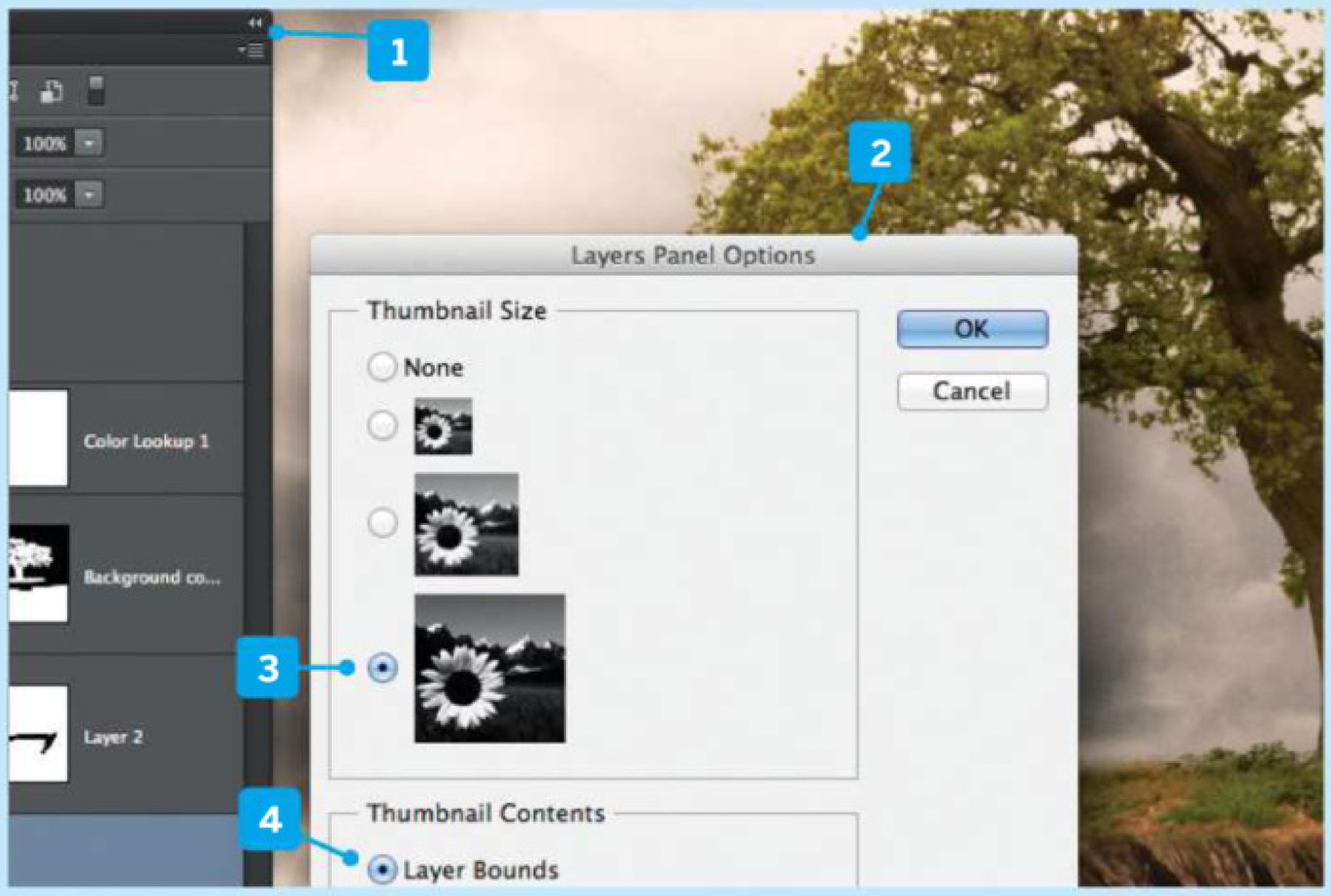
By applying black to a layer mask you can hide the corresponding pixels on the attached layer. Here we've hidden some of the edges of the mountain to help it blend more effectively with the tree. White strokes on the mask enable you to reveal hidden content.

7 ADJUSTMENT LAYERS

These useful layer-based tools enable you to change the colours and tones on the layers below. You can click the eye icon on any layer or adjustment layer to turn the layer on or off. We'll look at adjustment layers in more detail in the next tutorial.

Understanding... LAYERS PANEL OPTIONS

To fine-tune the way the Layers panel looks and behaves, click this little fly-out icon **[1]** at the top right of the panel and choose Panel Options from the pop-up menu. The Layers panel Options window will appear **[2]**. For much larger and easier-to-recognise thumbnails, click here **[3]**. Or choose a smaller thumbnail size if you're editing a multi-layered project on a small display. It's usually worth setting Thumbnail Contents to Layer Bounds **[4]**. This causes the thumbnail to display any contents on the layer, such as a small brush stoke, without showing all of the surrounding transparent pixels, which would make it harder to identify in the layer stack.



GET THE FILES HERE: http://bit.ly/PMZ34



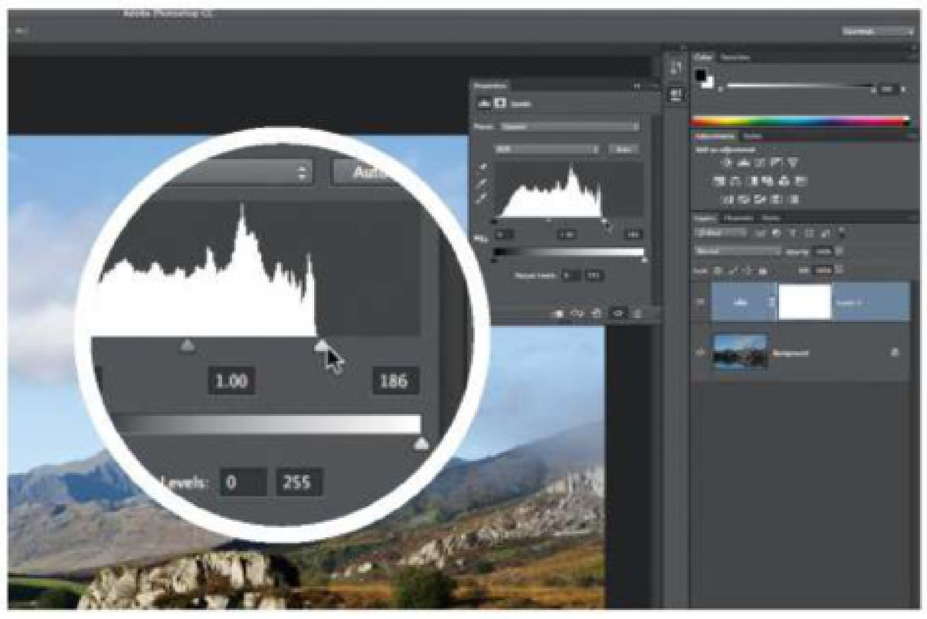
The power of adjustment layers

Adjustment layers enable you to adjust colours, tones and more, either globally, or locally. Here's how they work...

Photoshop's image-adjusting commands enable you to overcome common problems relating to colour and tone. Our starting image looks rather cool and uninviting. Cold colour casts can be caused when the camera's automatic white balance setting fails to capture neutral, tint-free colours. The colours are rather drab too, so we need to boost the saturation for a more attractive landscape. The image is also under-exposed, so we need to boost the exposure and increase the contrast for a more striking image.

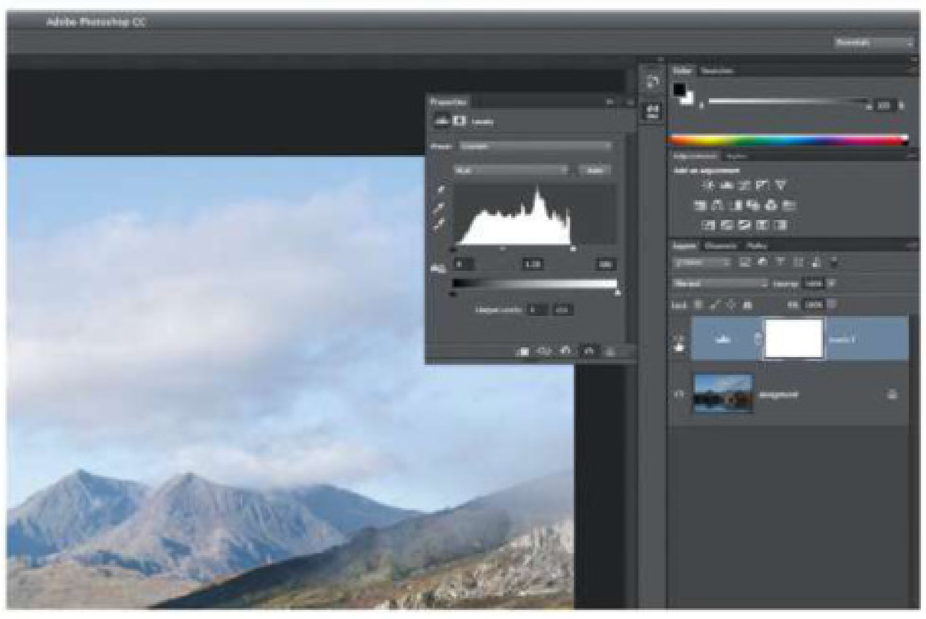
Photoshop's Levels command in the main menu via Image›Adjustment does a good job of clawing back missing shadow detail. However, once you've changed the tones of an image, you're stuck with the results, especially if you replace the original file with the edited version when you save it.

Fortunately, you can apply many of the main-menu commands as adjustment layers. These image-editing layers sit above the original photo's image layer in the Layers panel. Adjustment layers are versatile. You can turn them on and off to compare the edited image with the original. You can reduce their opacity to dial down the strength of the adjustment. You can also produce selective colour or tonal adjustments by painting on an adjustment layer's mask, enabling you to fine-tune which areas are being altered.



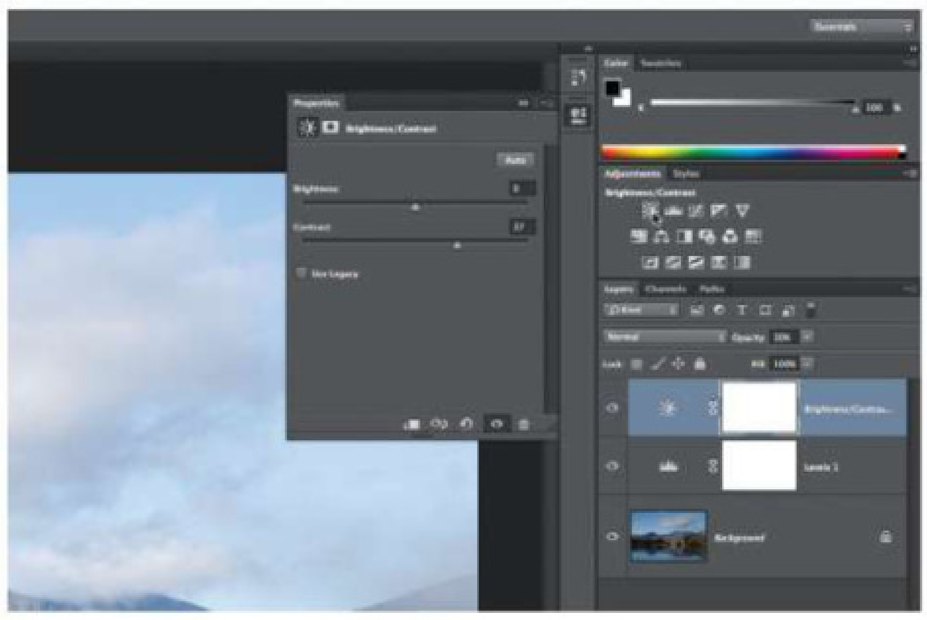
1 Add an adjustment layer

Open TYCC17.jpg. Choose Layer›New Adjustment Layer›Levels. A Levels adjustment layer will appear. In the Properties panel, the histogram lacks detail on the right, indicating that the image is under-exposed. To brighten the highlights, drag the white input level slider left to 186.



2 Before and after

To reveal more midtone detail (without altering the darkest shadows and the brightest highlights), drag the grey slider left to 1.28. The Levels adjustment layer is non-destructive. Click its eye icon to turn it on and off to compare the adjusted image with the original.



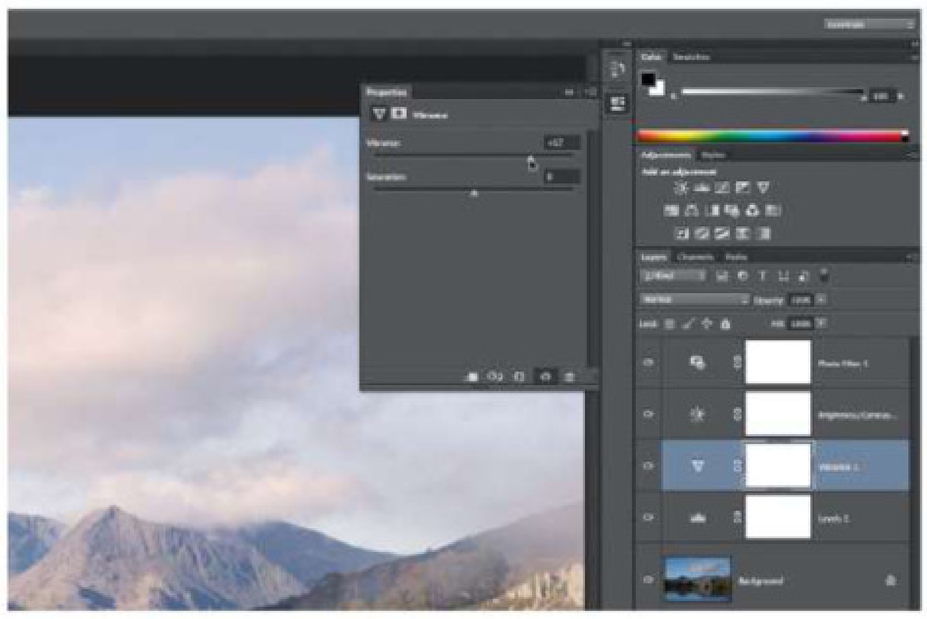
3 Adjustments panel

You can summon adjustment layers by clicking the appropriate icons in the Adjustments panel. Click Brightness/Contrast. Push the Contrast slider right to 37 for whiter whites and blacker blacks. This gives the image more impact.



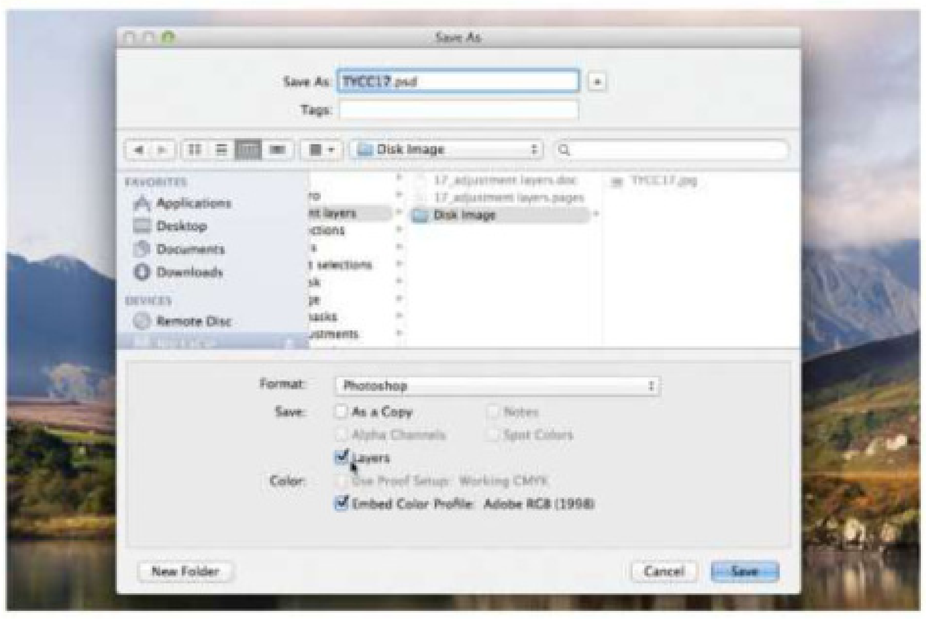
4 Remove the colour cast

The image looks a little cold due to a blue tint. To warm things up and create more natural-looking colours, click the Photo Filter adjustment layer icon. Set the Filter drop-down menu in the Properties panel to Warming Filter (LBA). Set Density to 36.



5 Boost the colours

When you brighten an under-exposed image, the new colours tend to look drab. Click the Vibrance adjustment layer icon and drag the Vibrance slider up to 57. This boosts weaker colours without over-saturating stronger ones. It also favours landscape colours like blues and greens.



6 Save a copy

If you save the document as a JPEG, Photoshop will apply the effects of the adjustment layers and create a flat version. If you want to be able to tweak the adjustments at a later date, choose File›Save As. Set the Format drop-down menu to Photoshop and keep the Layers box ticked. ■

GET THE FILES HERE: http://bit.ly/PMZ34



Be creative with Blend modes

Discover the special effects you can create in moments by mixing different images together using Blend modes

The Blend mode drop-down menu that sits near the top-left corner of the Layers panel is a powerful addition to the Photoshop user's toolbox. By changing the Blend mode of a layer, you can alter the way that it interacts with the layers beneath it. This enables you to blend layers for creative effect, such as using an abstract texture to age an image. The image above was tinted and aged using a Hard Light Blend mode to mix the colours and tones of a rusty metallic texture with a butterfly collage. We also used the Lighten Blend mode to add a hint of fog to the canal background. Check out the video tutorial on the free preview disc to see these techniques being implemented. As the following guide shows, there are 27 Blend modes in total. We've applied each one to the same butterfly layer to show how it mixes the butterfly layer with the texture layer below. As you can see, there's a wide variety of effects to experiment with, and the results will vary depending on the contents of your layers.



Normal
The default mode shows every pixel on the layer normally, without any blending of the layers. This means that the layers below the butterfly layer have no effect on the butterfly.



Dissolve
Mixes translucent pixels from the top layer with colours and tones on the layers below. The butterfly's feathered edge is translucent, so the effect is most noticeable in these areas.



Darken
Lighter pixels on the top layer are replaced by the colours and tones from the layer below, while darker pixels remain unchanged. The darker rust from the layer below shows through.



Multiply
Multiplies colours in the top layer with those underneath. Colours on the top layer that are lighter (such as the butterfly's white patterns) are replaced with pixels from the lower layer.



Color Burn
This Blend mode increases the contrast between the tones on each layer. Light pixels on the top layer make no change to the colours and tones on the layer below.



Linear Burn
Lowers the brightness of the layers underneath to reflect the colours of the top layer. As with Color Burn, lighter pixels on the top layer produce no change to the colours or tones on the layer below.



Darker Color
Examines the colour information and selects either the top layer's colour or the colours on the layer below – whichever is darker – as the resulting colours.



Lighten
Produces the opposite result of Darken. Any colours on the top layer that are lighter than the colours underneath will remain visible, such as the white streaks on the butterfly's wing.



Screen
Works out the inverse of the top layer's colours and multiplies it with those on the layer below. It tends to do the opposite of the Multiply mode and lightens tones.



Color Dodge

Causes lighter tones on the top layer to create more vibrant colours and increase contrast. Darker pixels on the top layer make no difference to the colours and tones on the lower layer.



Linear Dodge (Add)

Produces results similar to those created with the Color Dodge and Screen Blend modes, but the brightening is stronger. Dark colours on the top layer make no changes to the colours below.



Lighter Color

This mode studies the total of the three colour channel values for the top layer and the layer below and then chooses the highest values from both layers to create the resulting colour.



Overlay

Provides a subtle way of adding a wash of the lower layer's colour to the top layer while preserving the lower layer's detail. Its handy for painting on brush-based shadow effects.



Soft Light

This Blend mode darkens or lightens the colours of the top layer, depending on the colours of the layer underneath. If a pixel on the top layer is lighter than 50% grey, the pixel is lightened.



Hard Light

Multiplies or screens the colours of the top layer, depending on the colours of the layer underneath. If a pixel on the top layer is lighter than 50% grey, the pixel is lightened.



Vivid Light

Lightens or darkens the colours, but with more intensity than Soft or Hard Light. If the top layer is lighter than 50% grey, the image is lightened by decreasing the contrast.



Linear Light

Similar to Vivid Light, but adjusts the brightness rather than the contrast. If the top layer is lighter than 50% grey, the image is lightened by increasing the brightness.



Pin Light

If a pixel on the top layer is lighter than 50% grey, and the pixels on the layer below are darker, then the top pixels are replaced by the ones below.



Hard Mix

Adds the red, green and blue channel values of the top layer to the RGB values of the lower layer. This changes the top layer's pixels to primary additive colours (red, green, or blue).



Difference

Lighter colours on the top layer are inverted, and darker colours are replaced by the pixels below. As you can see from the calibration bar, blending with black makes no change to the layer below.



Exclusion

This Blend mode produces a similar result to the Difference Blend mode, but with less contrast. Lighter colours on the top layer are inverted, and darker colours are replaced by the pixels below.



Subtract

Studies the colours in each channel and subtracts the colours in the top layer from the colours underneath. In 8- and 16-bit images, any resulting negative values are clipped to zero.



Divide

This mode examines the colours in each channel and divides the top layer's colours by the colours in the layer below. In the case of our butterfly layer, this creates lots of blown-out highlights.



Hue

Mixes the colours of the top layer with the luminance and saturation of the colours on the layer below. The butterfly's colours remain (although they shift in hue).



Saturation

Mixes the saturation of the top layer's colour with the luminance and hue of the colours on the layer below. In this instance we have a greyscale impression of the butterfly.



Color

This mode produces similar results to the Saturation Blend mode, but mixes the hue and saturation of the top layer's colour with the luminance of the colours from the lower layer.



Luminosity

Mixes the luminance of the top layer's colour with the hue and saturation of the colours on the lower layer to produce a variation on the similar Hue, Saturation and Color Blend modes. ■

GET THE FILES HERE: http://bit.ly/PMZ34

Organise your layers efficiently

Work faster with your image layers using these easy techniques for keeping the Layers panel organised

When working on creative projects, you can build up a large collection of layers. This can lead to time wasted scrolling through multiple layers in search of specific content, especially if the layers have generic names such as Layer 1, layer 2 and so on. In this tutorial we'll offer you some housekeeping suggestions on how to organise your layers more effectively. We'll also demonstrate how to find layers according to attributes such as their names or assigned colour labels.

Any adjustment layer you add to the Layers panel will alter the colours and tones on all of the layers below it. You may not want to adjust every layer, though, so we'll show you how to restrict an adjustment layer to the layer directly below it, while preserving the colours and tones of other layers in the document. We've provided you with a layered document to work with, so you can put our tips into action to label, group and colour-code the layers as well as clip an adjustment layer to a specific image layer (or layer group).

Once you've created a layered document you may want to apply a creative filter to it. To do this you would normally have to flatten the multiple layers into one and then apply a filter. To get the best of both worlds, click the top layer and then press Cmd/Ctrl+Shift+Alt+E.







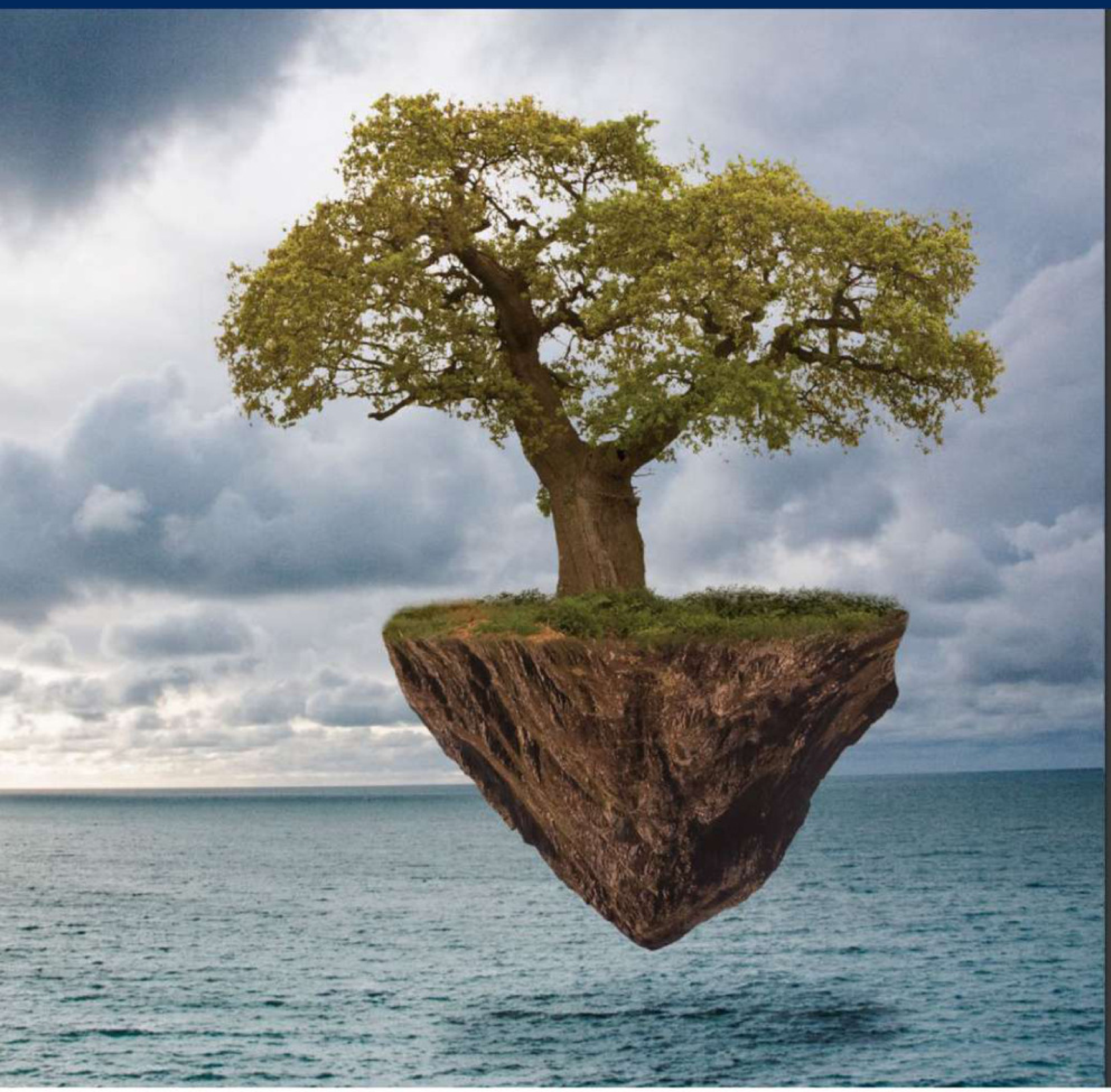
1 Name and label

Open Layer tips.psd. This layered document contains several image layers and an adjustment layer. Double click each image layer's label and rename it with a descriptive name such as Shade or Tree. Right click the thumbnail of a layer and choose a colour label.

2 Group the layers

Shift-click the tree and mountain layers to select them both. Go to Layer›Group Layers. This collapses the selected layers into a folder that takes up less space. You can toggle the folder open to reveal its grouped contents. You can drag other layers into a group folder.

GET CREATIVE WITH LAYERS







3 Find by filter

Despite labelling and grouping layers it can still take a while to find a specific layer. At the top of the Layers panel, set the filter drop-down menu to look for attributes such as Color. Set the adjacent menu to choose a specific colour label. Only layers matching the attribute will be visible.

4 Make a clipping mask

Set the Filter back to Kind to reveal all the layers. Click the adjustment layer at the top. It's altering the colour of all of the layers below. To limit it to the group immediately below it, choose Layer›Create Clipping Mask. Now only the tree and mountain will be adjusted. ■

GET THE FILES HERE: http://bit.ly/PMZ34

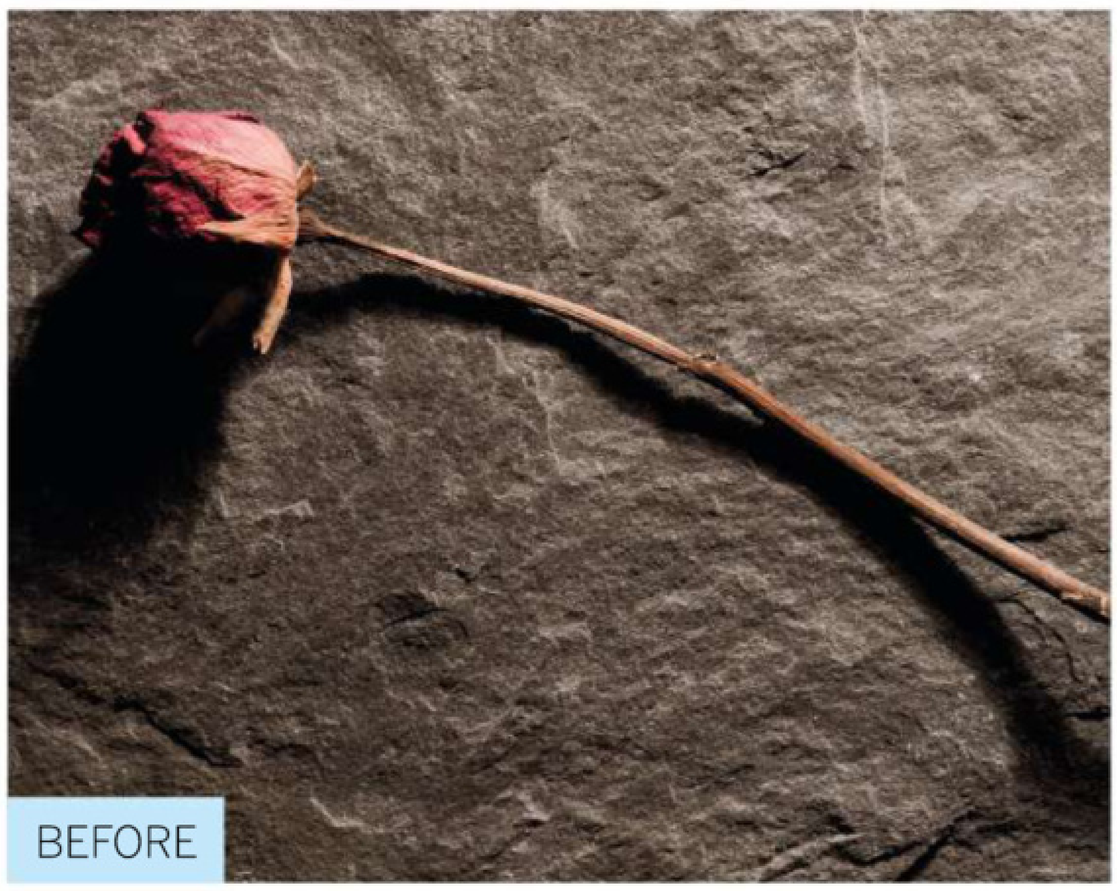
Add effects with Layer Styles

Enhance your photos with embossed text using a Layer Style to add simulated depth and lighting effects

Photoshop's Layer Styles enable you to enhance your images with a huge range of creative effects that are fun and easy to use. In this tutorial we'll chisel some text into the stony surface of our starting image courtesy of the Type tool, Blend modes and Layer Styles. You can adapt the technique to create your own custom greetings cards or poster text.

The Horizontal Type tool produces filled vector shapes that you can edit to change the font and characters, just as you would with a word-processing package. This gives you the freedom to tweak your text at any time, even after you've used Layer Styles to make it look like it's carved in stone. We've used the Emboss Layer Style to give the flat 2D text the illusion of depth. The interior of the text has a smoother granite pattern added to it to make the text easier to read. A Blend mode helps to mix the original stone with the granite pattern. You could also change the lighting of the Layer Style so that the shadows and highlights in the 3D text match the lighting in the source image.

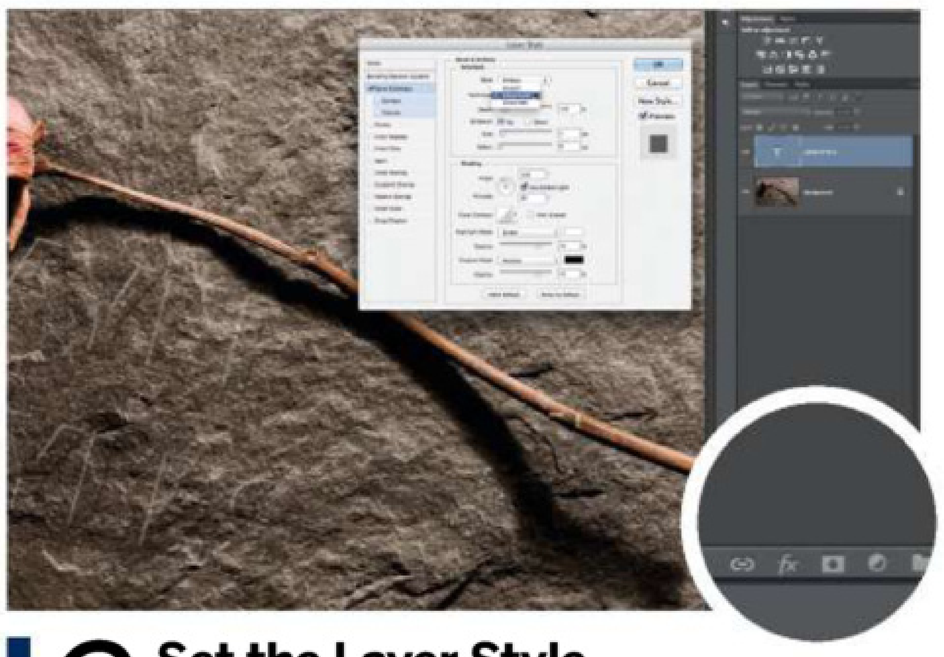
In this tutorial we're only scratching the surface of what Layer Styles have to offer in relation to your creative projects, so experiment with other attributes in the Layer Styles panel to see the potential.





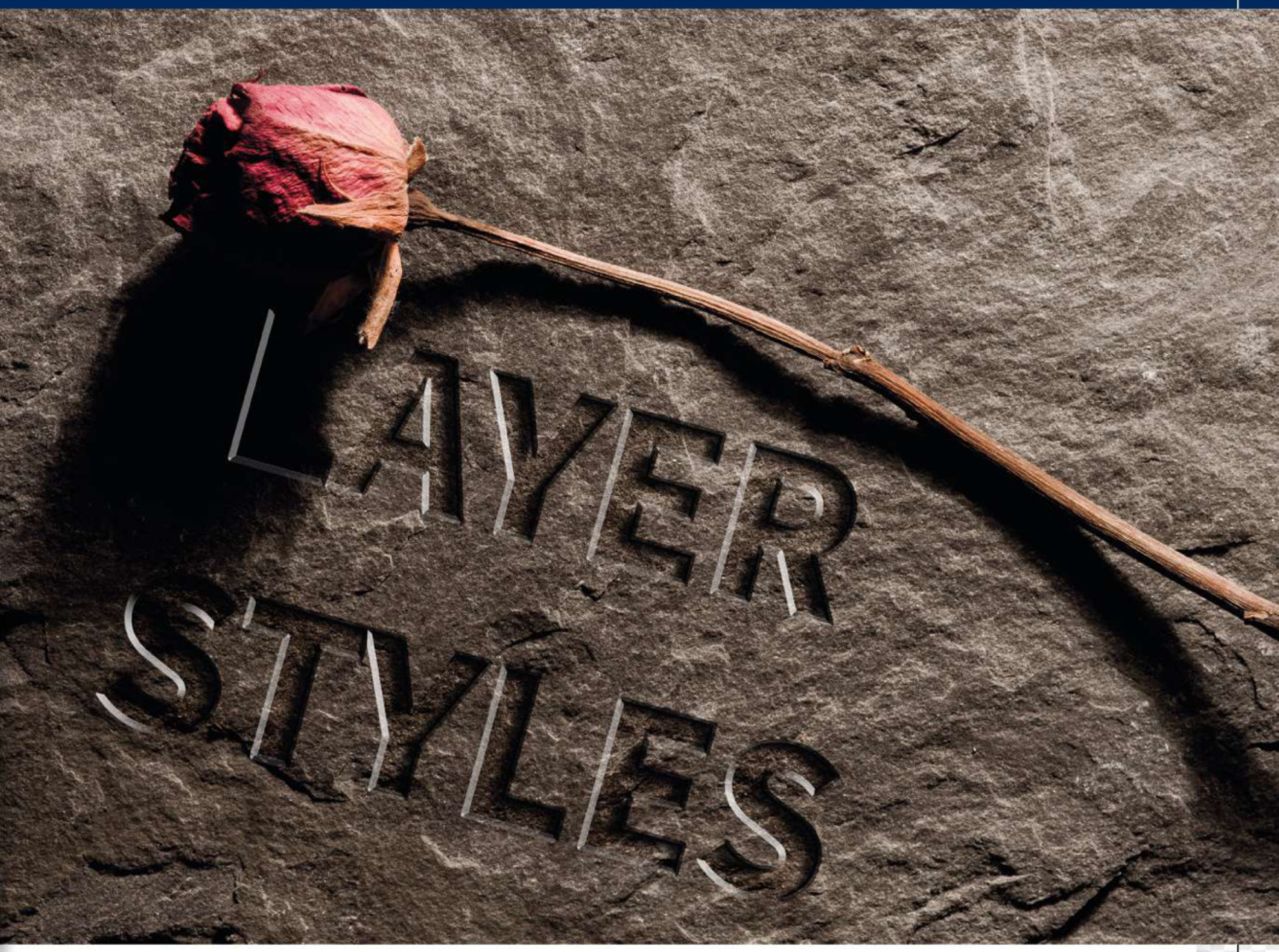
1 Type some text

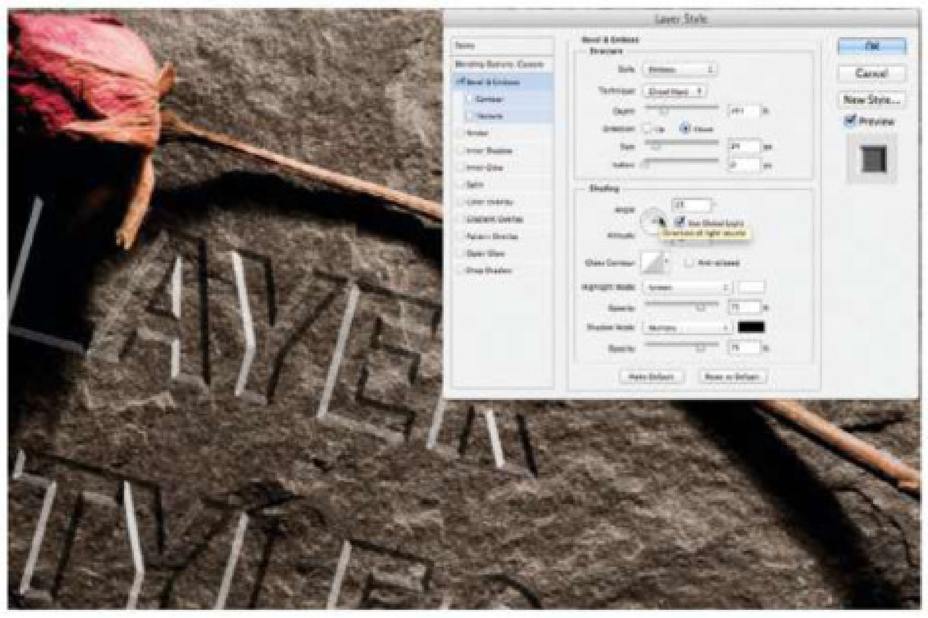
Open TYCC91.jpg. Grab the Horizontal Type tool. Set the Font menu in the Options bar to a bold font such as Source Sans Pro. Set Size to 200. Set the colour to white. Type in some text. A text layer will appear. Press Cmd/Ctrl+T and drag to rotate the text at an angle. Hit Enter.



2 Set the Layer Style

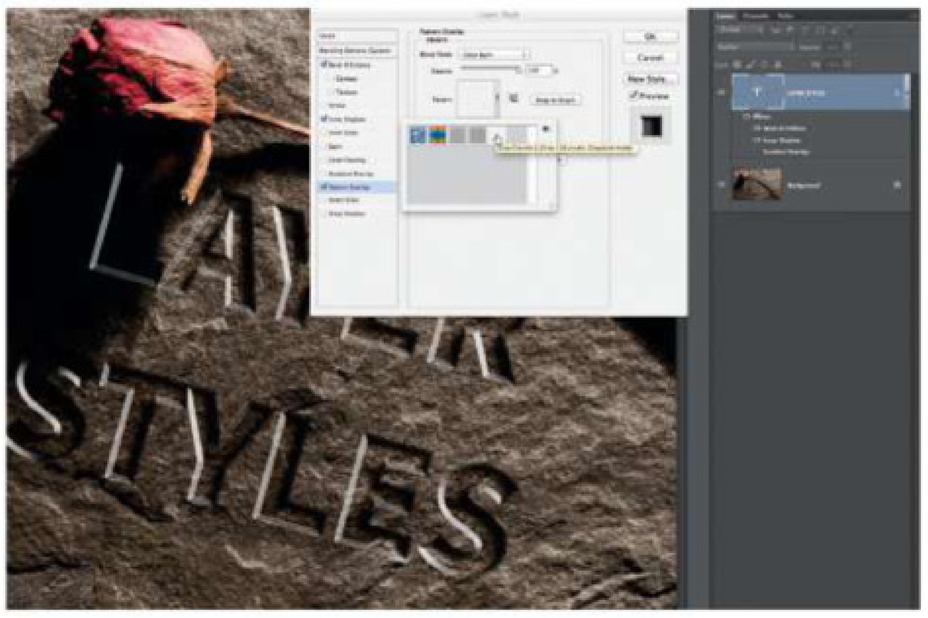
Set the text layer's Blend mode to Darken. The white text will vanish. Click the fx icon at the bottom of the Layers panel to summon the pop-up list. Choose Bevel & Emboss. The Layer Styles window will open. Set the Style drop-down menu to Emboss. Set Technique to Chisel Hard.





3 Dig deeper

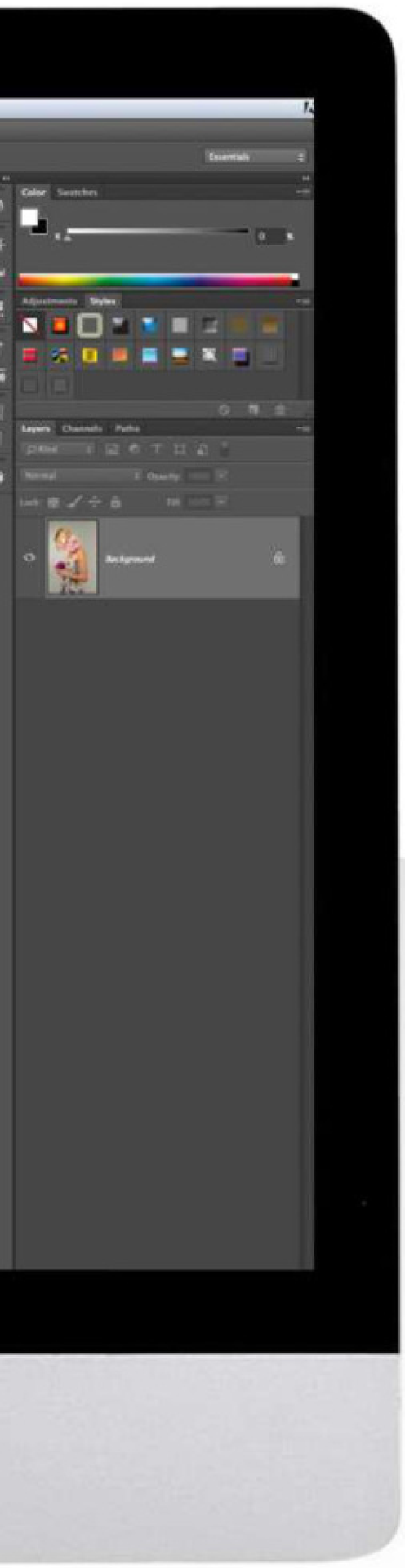
Set the Depth slider to 261%. Click the Down Direction box. Increase the Size to 24 pixels. In the Shading section, set Angle to 23 degrees and Altitude to 48 degrees. This makes the shadows and highlights match the lighting in the source image.



4 Extra effects

Click the Inner Shadow attribute to activate and edit it. Set Distance to 59 and Size to 27. The direction of the lighting will match the settings used in the Bevel & Emboss section. Click Pattern Overlay. Set the Blend mode to Color Burn and opacity to 100. Use the Granite pattern. ■


Photoshop File Edit Image Layer Type Select Filter 3D View Window Help
Adobe Photoshop CC



Making selections

Selections are the cornerstone of creative compositing. Learn how to make, modify and perfect them here...

66 Introducing Photoshop's selection tools
Create and modify basic selections in your images using Photoshop's simple marquee selection tools

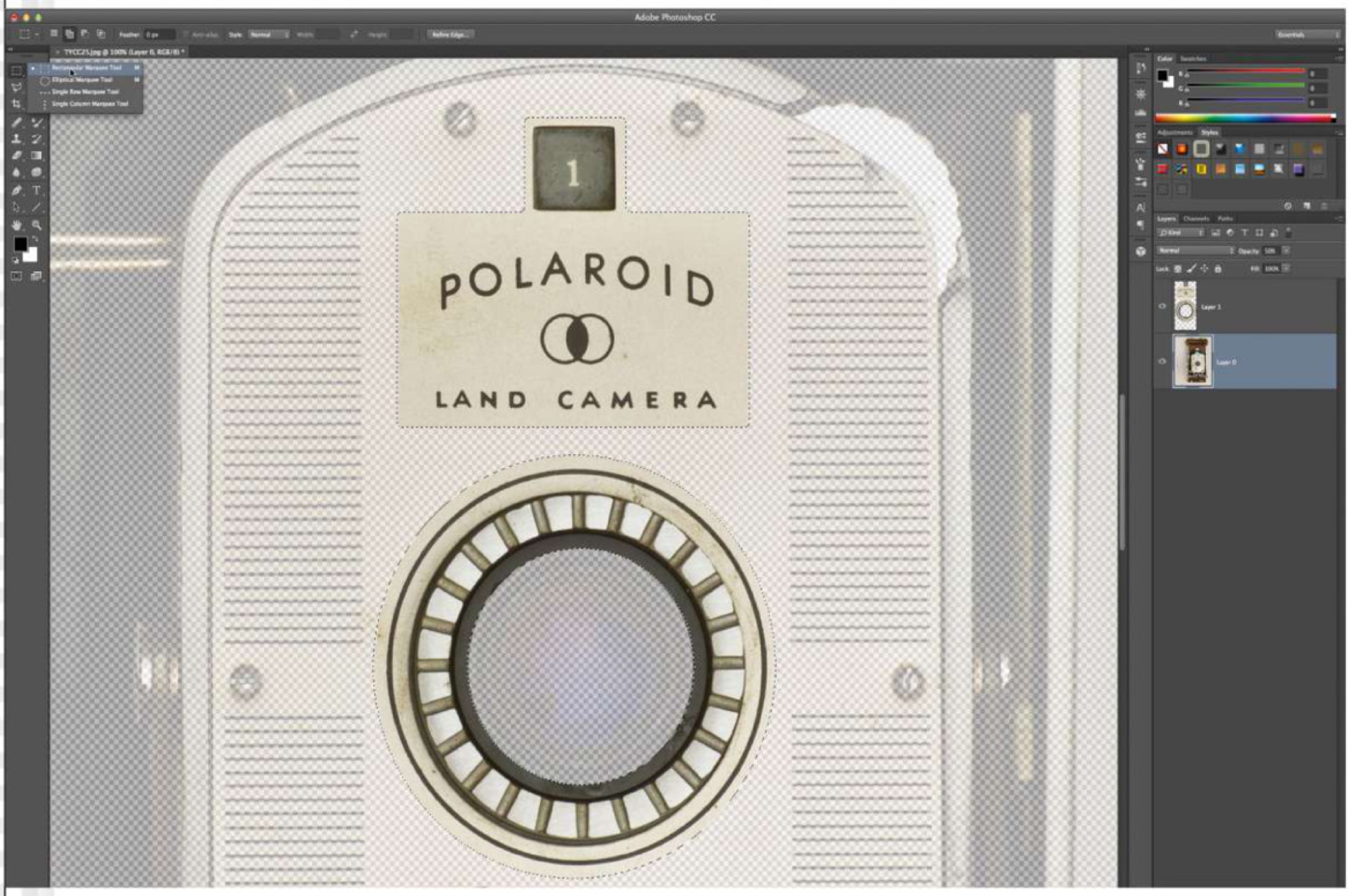
68 How to use the Lasso tools
Round up a more complex selection of pixels in your photographs with the Magnetic and Polygonal Lasso tools

70 Photoshop's intelligent selection tools
Isolate more complex objects using tools that use colour and tone differences in the image to create selections

72 Editing selections in Quick Mask mode
Fine-tune a selection marquee quickly and intuitively using a brush in the Quick Mask editing mode

74 Perfect your selections using Refine Edge
Make more convincing composites by including complex, fine details such as fly-away hairs in your selections

GET THE FILES HERE: http://bit.ly/PMZ34



Photoshop's basic selection tools

Create and modify basic selections in your images using Photoshop's simple marquee selection tools

Many of Photoshop's tools and menu commands enable you to change the colours and tones in the entire image. However, in some cases you may need to alter the tones of a particular area without changing the image as a whole. You may also want to isolate a particular element from one photo and add it to another to create a composite image. This is where the selection tools come in handy. There are nine selection tools in the Tools panel, and in this chapter we'll show you how to put them through their paces so that you can find the right tool for any selection challenge.

The selection tools work in different ways, but they all produce a selection marquee – a straight or curved line made up of animated black-and-white dashes, which are often referred to as 'marching ants'. Think of a marquee as a fence that isolates the pixels within it from the rest of the image. You can then copy the selected pixels or change their colour or tone without altering pixels that fall outside the selection marquee.

The most basic selection tools are the Elliptical, Rectangular, Single Row and Single Column marquees. These tools share the same compartment. You can use them to make simple selections. We'll kick off by looking at these basic marquee selection tools and demonstrate ways to modify the shapes they produce so that you can make more complex selections. You'll learn how to add to and subtract from the basic shapes, and how to transform the shapes and soften their edges using the Options bar. ■

Photoshop Anatomy The marquee tools

Create a basic selection marquee and modify its shape

1 COMPARTMENT

Click this compartment and hold down the mouse button to access the four selection marquee variants. The Row and Column marquee tools produce instant vertical or horizontal lines that you can stroke to create guide lines, for example.

2 ADD OR SUBTRACT

By default the Rectangular and Elliptical marquees produce a primitive shape selection. By clicking these options you can get the tools to add to or subtract from the initial shape that they create, to make more complex selection marquees.

3 FEATHER

By default a selection marquee produces a clean, sharp edge. To create a softer edge to any selection marquee, increase the value in the Feather field. A softer edge enables copied pixels to blend more gently with their new neighbours.



4 STYLE

To create a perfect circle with the Elliptical Marquee tool, set the Style drop-down menu to Fixed ratio. You can also hold down Shift as you draw with the Elliptical Marquee to constrain the shape to a circle. If you choose Fixed Size you can type pixel values into the adjacent boxes.

5 ADD TO

Here we've used the Rectangular Marquee tool to draw two overlapping rectangles. We clicked the Add to selection box in the Options bar to make the rectangles intersect and create a new shape.

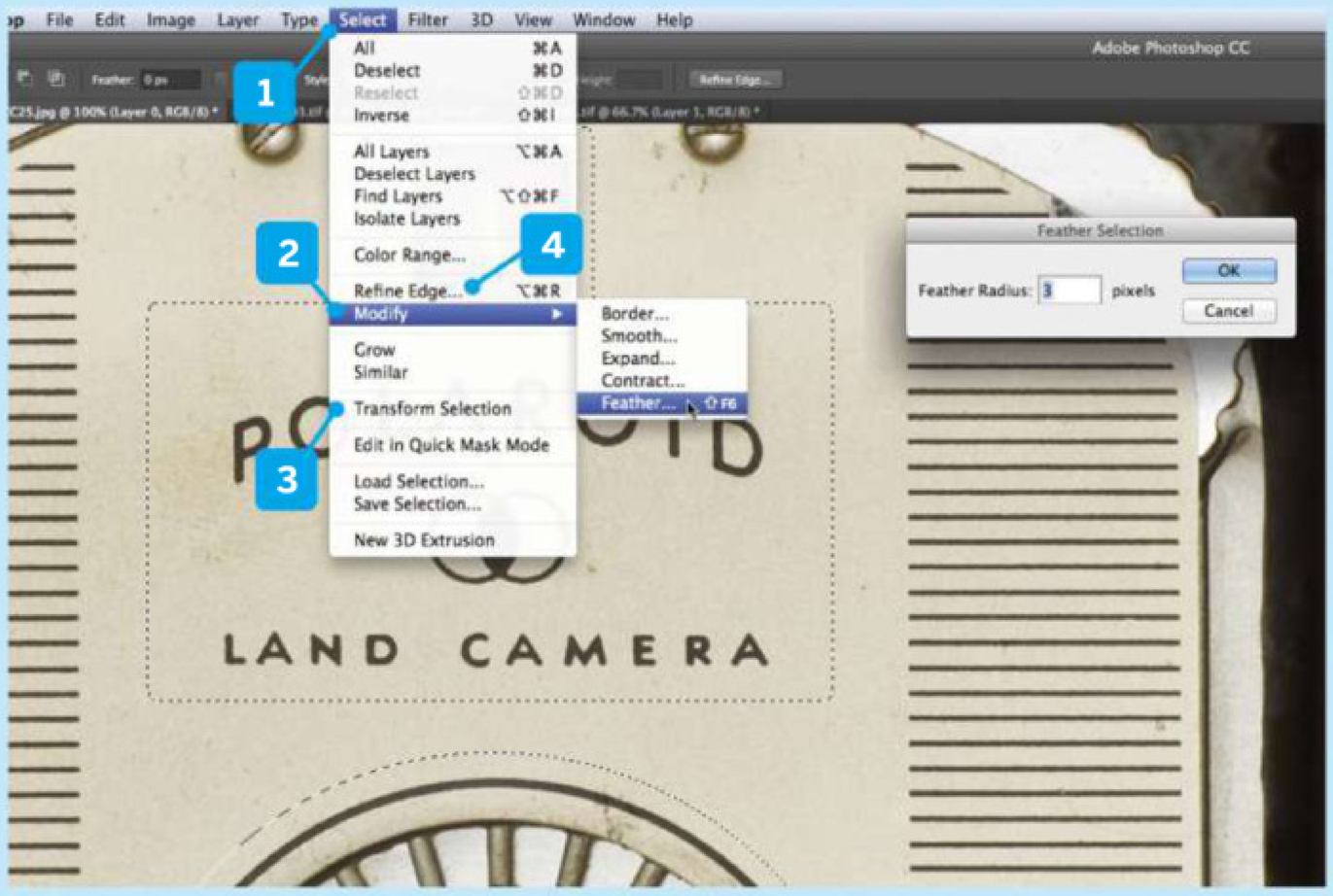
6 SUBTRACT FROM

Here we used the Subtract From icon in the Options bar to cut a smaller circular hole in a larger elliptical selection. If you place the cursor in the centre of a circular shape (such as the lens in this image) you can hold down Alt to make the marquee grow outwards from the central point.

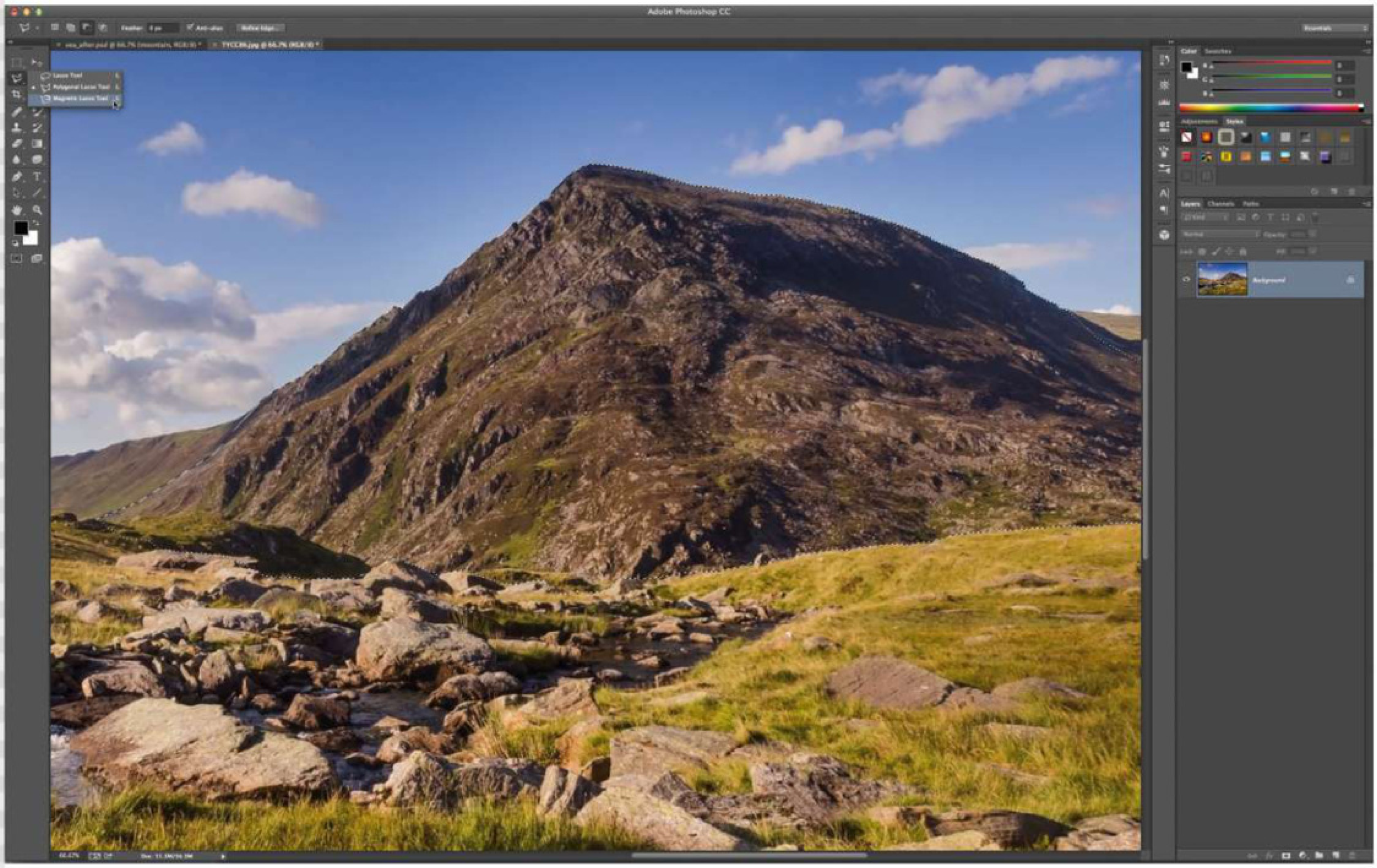
Understanding... THE SELECT MENU

Once you've created a selection marquee you can modify the way it behaves using the commands in the Select **[1]** menu. The Modify commands enable you to expand or contract the selection by a specific pixel value. You can also decide to soften a selection marquee after it's been created by accessing the Feather command **[2]**.

If you drag a selection with the Move tool then you'll move the pixels within the marquee. This handy command **[3]** enables you to reposition the marquee without relocating its contents. Refine Edge **[4]** makes light work of selecting tricky subjects such as models with wispy hair. We'll look at this command in detail later in this chapter.



GET THE FILES HERE: http://bit.ly/PMZ34



How to use the Lasso tools

Round up a more complex selection of pixels in your photos with the Magnetic and Polygonal Lasso tools

On the previous pages we introduced you to simple selection tools such as the Rectangular and Elliptical marquees. These primitive selection tools are fine for selecting basic shapes, but not much help if you need to select more complex or irregularly shaped objects, such as the jagged mountain in our starting image. The Lasso tools are directly beneath the marquee tools in the Tools panel.

The basic Lasso tool enables you to draw a quick freehand selection marquee, which is good for making quick but rough selections. You have to make a freehand Lasso selection in one operation by clicking the mouse button, then holding it down as you draw. Once you let go of the mouse button the marquee selection is completed.

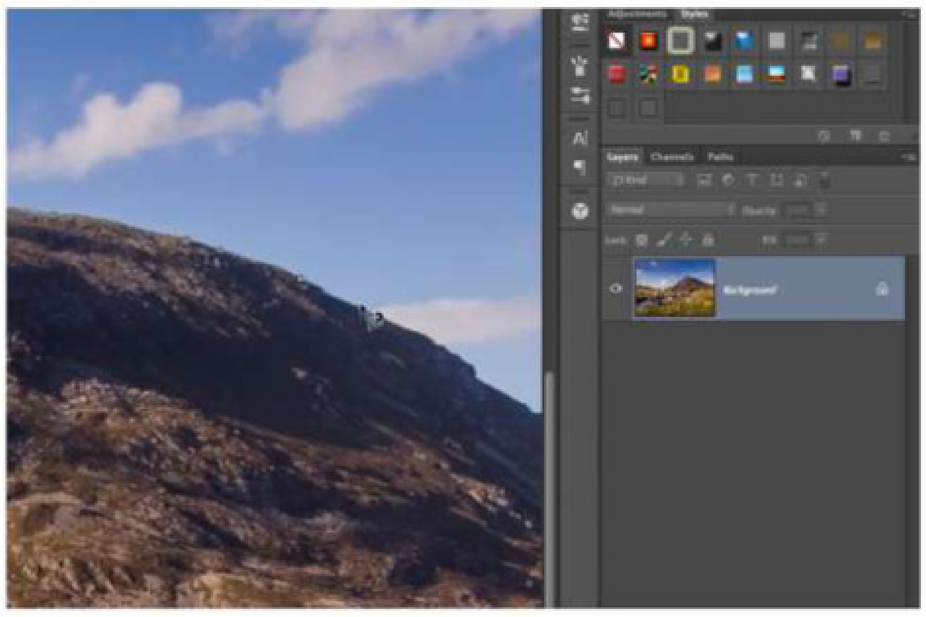
Some selection challenges require a lasso tool with more control, such as the Polygonal Lasso. To understand how this particular selection tool works, imagine you had some pins, a cork board and a piece of string. You can pin the string onto the board to create shapes. The string (marquee) between each pin (anchor point) will always be a straight line, but with lots of pins you can create curved shapes.

The final Lasso tool is the most powerful – the Magnetic Lasso. This behaves like a more intelligent Polygonal Lasso. The Magnetic Lasso also creates anchor points while making a selection, but as its name suggests, these are placed automatically as you draw freehand around the edge of the object you want to select. Here we'll demonstrate how to use the Magnetic and Polygonal Lasso tools to select a mountain.



1 Open the image

Open TYCC86.jpg. The Mountain has jagged edges, but you can make a quick selection using the Magnetic Lasso. Click the new Selection icon in the Options bar. Set Width to 5 pixels. This stops the tool's anchor points from straying too far from the edge of the mountain.



2 Start drawing

There's plenty of contrast between the edges of the mountain and the sky, so leave Contrast at 10%. Drop Frequency to 36 to reduce the number of anchor points placed by the tool. Place a point at the base of the mountain and start drawing along the edge.



3 Delete wayward anchor points

As you follow the edge, an anchor point may go astray. Move the cursor near the last anchor point and hit Backspace to delete it. Continue to draw your selection. If you hold down the space bar you can temporarily summon the Hand tool and drag to reposition the image.



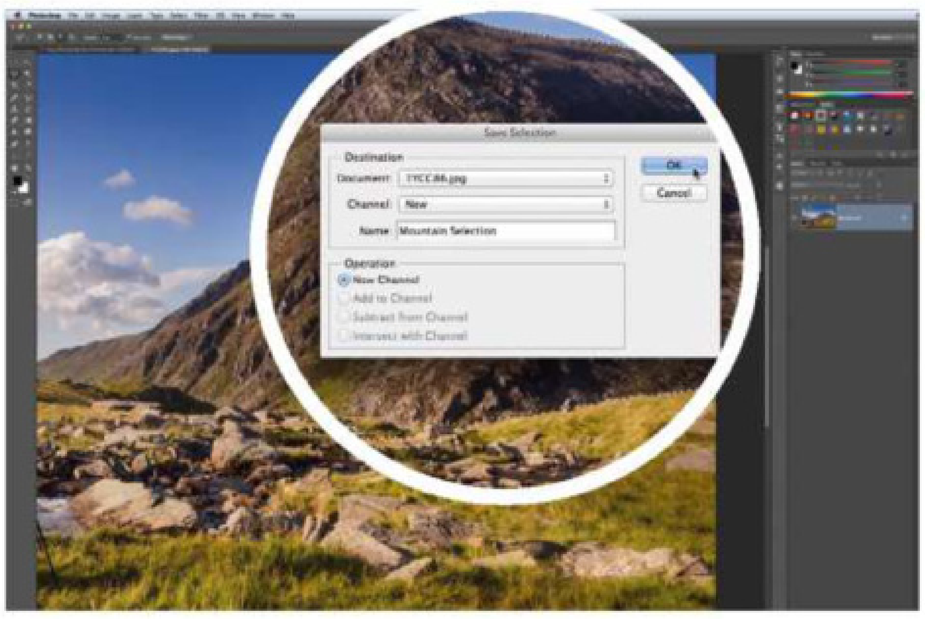
4 Complete the path

Don't worry about being too accurate because you can modify the selection using other lasso tools. To turn the path and its anchor points into a selection marquee, place the last point on the first. The 'marching ants' will appear.



5 Trim the selection

Grab the Polygonal Lasso tool. Click Subtract from selection in the Options bar. Place points that trim some of the marquee from the sides of the mountain. Place the last point on the first and you'll create a narrower, more triangular-shaped selection marquee.



6 Save the selection

We'll use the mountain as part of a surreal composite in the next chapter, so choose Select›Save Selection. Name the selection 'Mountain Selection'. Tick New Channel. Click OK. We'll reactivate this saved selection in our creative tutorial. Save the file as a Photoshop document. ■

GET THE FILES HERE: http://bit.ly/PMZ34

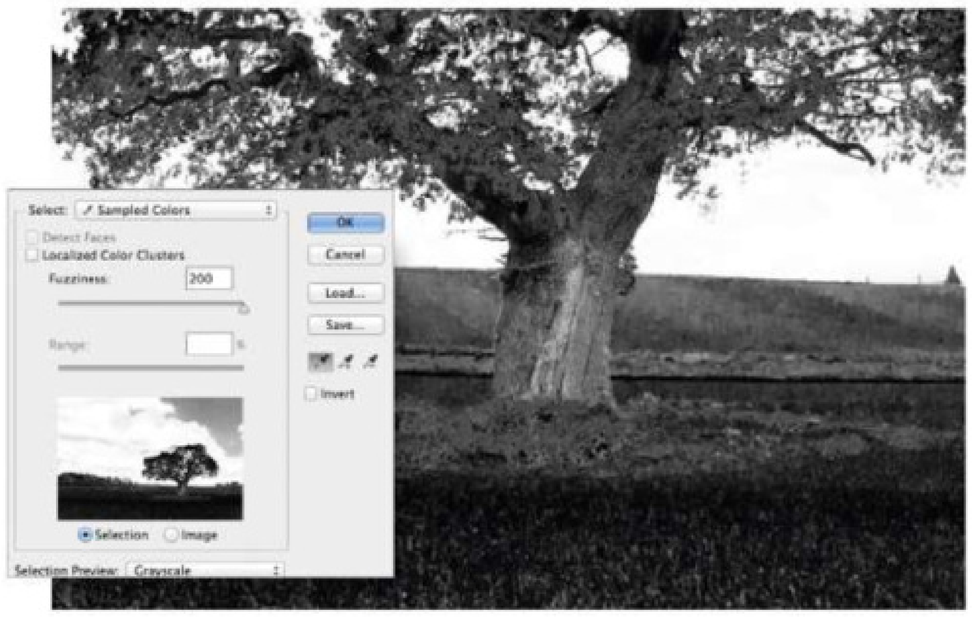
Intelligent selection tools

Isolate more complex objects using tools that use colour and tone differences in the image to create selections

You can make quick, rough selections by manually drawing a marquee using the Elliptical or Rectangular Marquee tools. Alternatively, you can use manual selection tools such as the Polygonal Lasso tool to select more irregularly shaped subjects such as a jagged mountain. The Tools panel has a third compartment containing the intelligent selection tools. Tools such as the Magic Wand tool enable you to make selections based on similarities in colour and tone, so you can select large areas such as skies with a few clicks. This tool is handy for instantly hunting out bits of sky between tree branches. The Magic Wand tool shares its Tools panel compartment with the Quick Selection tool. Like the Magic Wand tool, the Quick Selection tool recognises changes in colour and tone, making it the perfect choice for selecting contrasting objects.

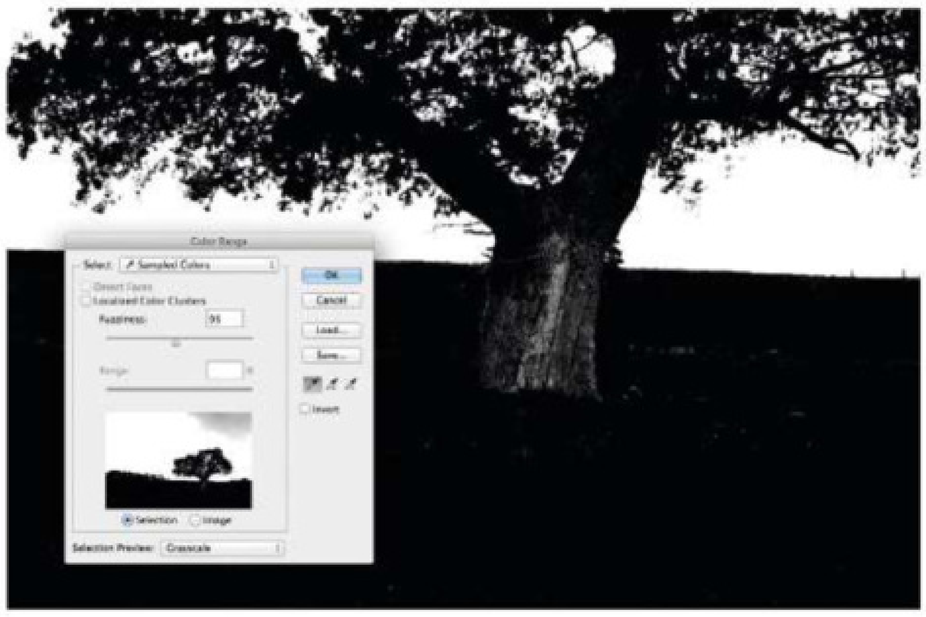
Like the Magic Wand tool, the Color Range command also selects pixels based on their colours. With the Magic Wand tool you can select the sky and then delete the marquee to leave the tree, but this may also delete leaves and fine branches. The Color range command gives you a useful greyscale preview that enables you to see precisely which areas are part of the selection, as you'll see in our walkthrough.

All these tools make a 'marching ants' style selection marquee that defines the locations of the selected pixels. By experimenting with the selection tools you can work out which tool will be the most appropriate when dealing with a particular selection challenge. In this walkthrough we'll isolate a complex tree from a busy background by combining a range of intelligent selections tools and techniques.



1 Make a selection

Open TYCC87.jpg. One way to make colour-based selections is to choose Select›Color Range. The sky contains a range of blues, so leave the Select menu set to Sampled Colors. Click the eyedropper on a patch of sky. Set the Selection Preview drop-down menu to Grayscale.



2 Modify the selection

Hold down Shift and click the eyedropper to add more patches of sky to the selection. We want all the sky to look white so that it's selected. To turn the tree and its leaves black, drag the Fuzziness slider to around 95. If necessary, Shift-click to add more patches of sky to the selection.



3 The Quick Selection tool

Click OK. To add the field to the selection, grab the Quick Selection tool from the Tools panel. Click the Add to selection icon in the Options bar. Paint on the field to extend the marquee into it. Click the Subtract from selection icon and paint to undo any mistakes.



4 Delete the selection

In the Layers panel, double click the Background layer's thumbnail to unlock it. Choose Edit›Cut to delete the selected sky and field. This leaves the tree and its complex leaves isolated against a transparent background. Press Cmd/Ctrl+D to remove the marquee.



5 The Magic Wand tool

Now we'll show you an alternative technique so that you can decide which method you prefer. Choose File›Revert to restore the image to its original state. Grab the Magic Wand tool and click the New Selection icon in the Options bar. Set Sample Size to 3 by 3 Average.



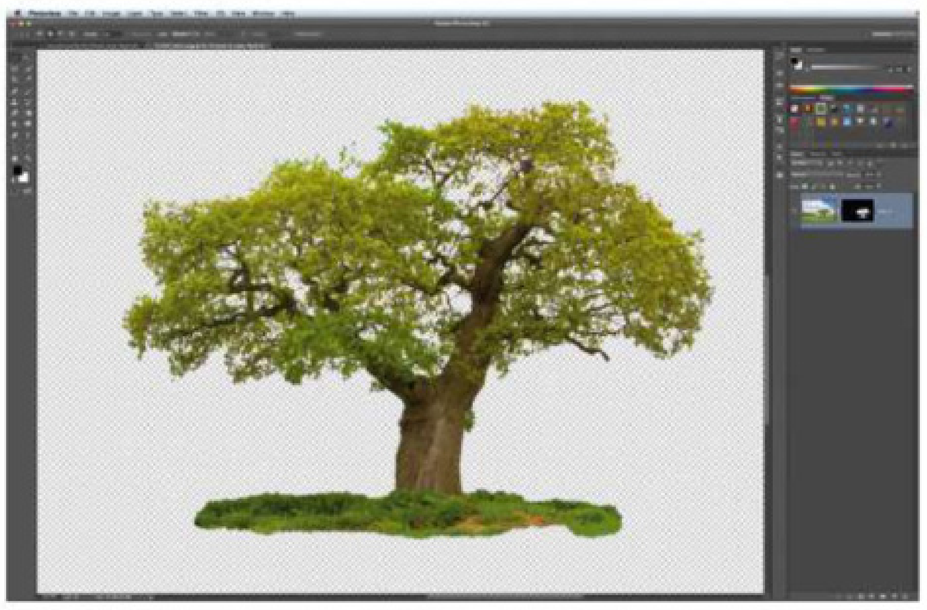
6 Adjust the options

Set Tolerance to 52 so that the Magic Wand selects a wide range of colours, given the variety of blues and whites in the sky. Keep the Contiguous box cleared. Click to select a patch of sky, then hold down Shift and click to add more sky and clouds to the selection.



7 Fine-tune the selection

Grab the Quick Selection tool and click the Add to Selection icon in the Options bar. Paint over the field to add it to the marquee. Click the Subtract from Selection icon and paint over the green vegetation at the base of the tree to remove it from the selection, just like we did in step 3.



8 Make a layer mask

We could delete the sky as we did in step 4, but to give us more editing options we can turn the selection into a non-destructive layer mask. Double click to unlock the background layer. Choose Layer›Layer Mask›Hide Selection. The marquee converts into a black-and-white mask. ■

GET THE FILES HERE: http://bit.ly/PMZ34

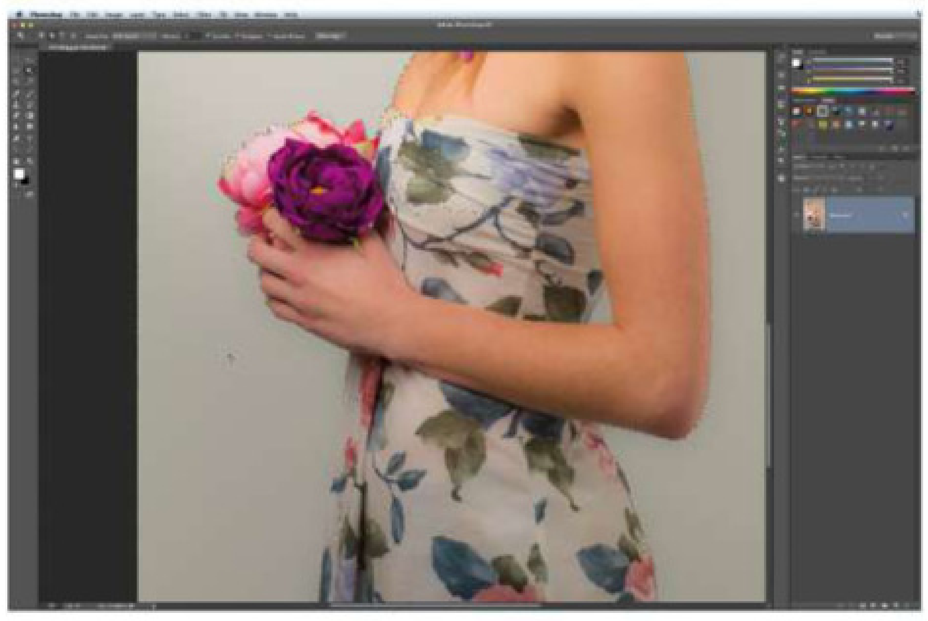


Quick Mask edits

Fine-tune a selection marquee quickly and intuitively by using a brush in the Quick Mask editing mode

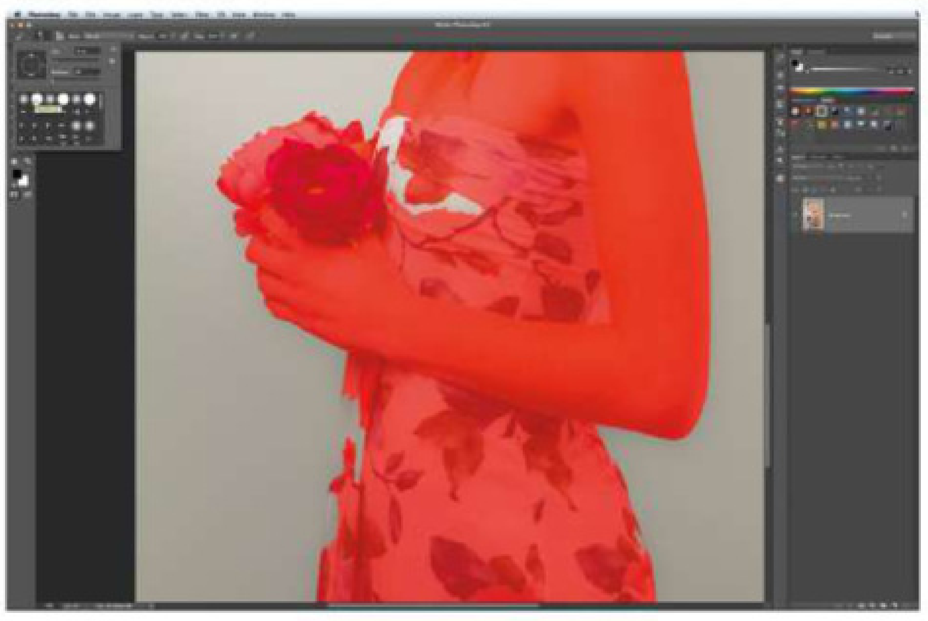
After making an initial selection with one of Photoshop's marquee tools, you may need to tweak the shape of the marquee to select your subject more effectively. You can use the Add to or Subtract from icons in the Options bar to change the way the active selection tool behaves. Alternatively, you can adjust existing selections by using the Select menu's Modify commands to expand or contract the selection around the edges of the subject.

The Select›Modify commands are useful when fine-tuning the selection overall, such as giving it a feathered edge, but for more control you can try editing it in Quick Mask mode. A Quick Mask replaces the selection marquee with red colour. By manually painting with a black or white brush on the mask you can add to or subtract from the selected areas until the selection has been improved. The temporary Quick Mask mode is a close cousin to the permanent layer mask. It's a great way to check that your selections are complete.



1 Make a selection

Open TYCC88.jpg. Grab the Magic Wand tool. The model's dress is a similar colour to the backdrop, so reduce Tolerance to 23 and click Contiguous to make the tool only select areas that are connected to the sample section. Shift-click to add all the background to the selection.



2 Activate Quick Mask

To remove parts of the dress from the selection, press Q to turn the marquee into a Quick Mask. Unselected areas appear as red patches. Grab the Brush tool. Choose a hard round brush tip from the Brush Preset picker. Set the foreground colour to black by pressing D for default.



3 Edit the Quick Mask

Paint over any areas of the dress that should be excluded from the selection. These areas will turn red as you paint. To remove the edges of the dress from the selection, hold down Shift and click to place points. The Brush tool will draw a straight line between each point.



4 Modify the marquee

Press X to switch the foreground colour to white. Now you can paint to add bits of backdrop to the selection (such as the area near her elbow). The red patches will disappear, indicating a selected area. Press Q to exit Quick Mask mode and see the modified selection marquee. ■

GET THE FILES HERE: http://bit.ly/PMZ34

Perfect your selections

Make more convincing composites by including complex, fine details

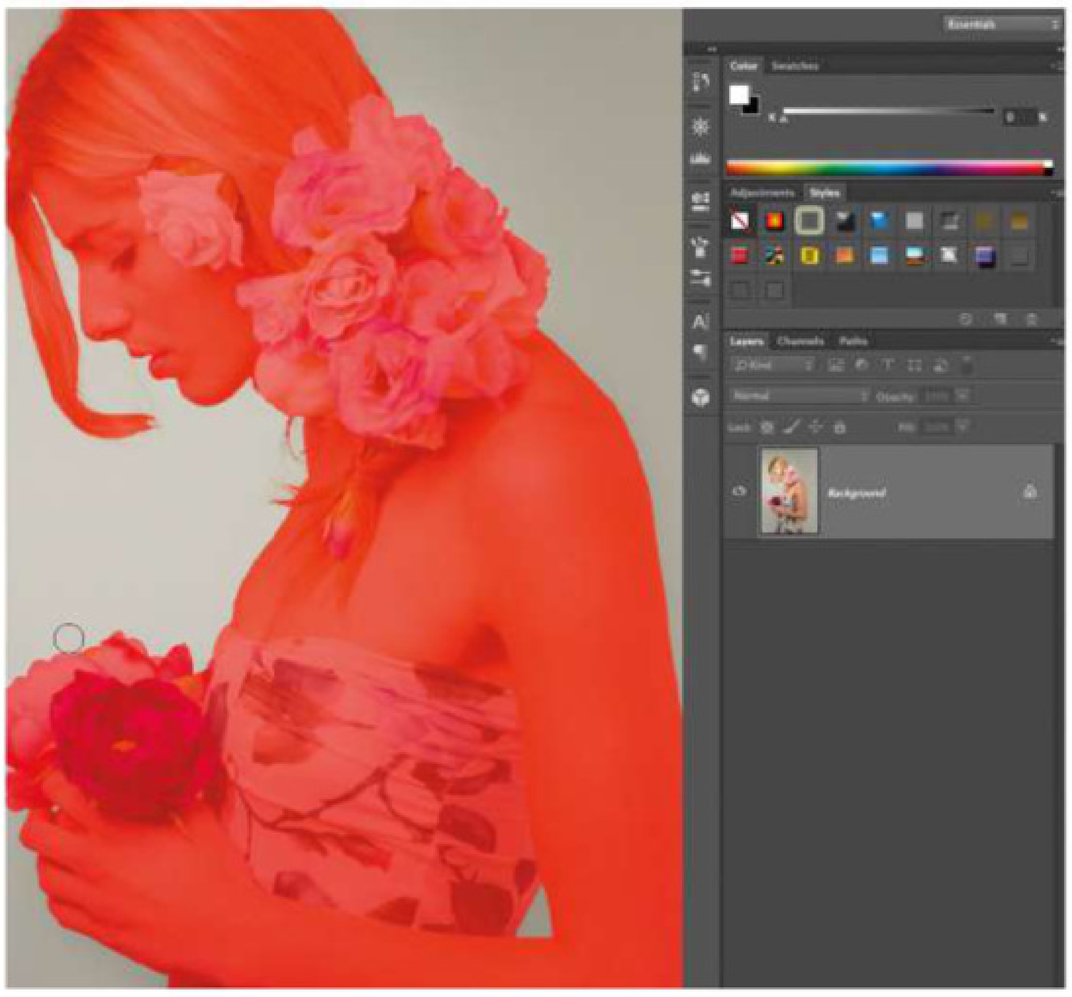
On the previous pages we made a typical selection using the Magic Wand tool to sample an evenly coloured studio backdrop. We then summoned a Quick Mask and painted with a black brush on the edges of the woman to remove her similarly coloured dress from the initial selection. A white brush was used to add missing bits of backdrop to the selection.

The Quick Mask and a white or black brush tip enable you to refine a selection marquee if the subject has relatively hard and simple edges. However, this technique is unable to help when it comes to selecting more fine details such as hair. You could try to add more hairs to a selection marquee by using the Select›Modify›Expand command. However, this would also include bits of unwanted studio backdrop in the selection. If you choose Edit›Cut to remove the selected studio backdrop you'll notice that many hairs will be missing. The remaining hairs will hairs look jagged and cut out, which will make it difficult to create a convincing composite when you add a new background.

Fortunately, help is at hand in the shape of the powerful Refine Edge command. This amazing feature has powerful selection-modification tools that can refine a selection by smoothing jagged edges and removing unwanted fringes of background colour clinging to the edges of the subject. It also includes the Refine Radius tool, which can isolate fine hairs on an unwanted background, enabling you to create a much more convincing composite image that preserves fine details. You can also use Refine Edge to convert your selection into a permanent layer mask, and fine-tune it at a later date if necessary.

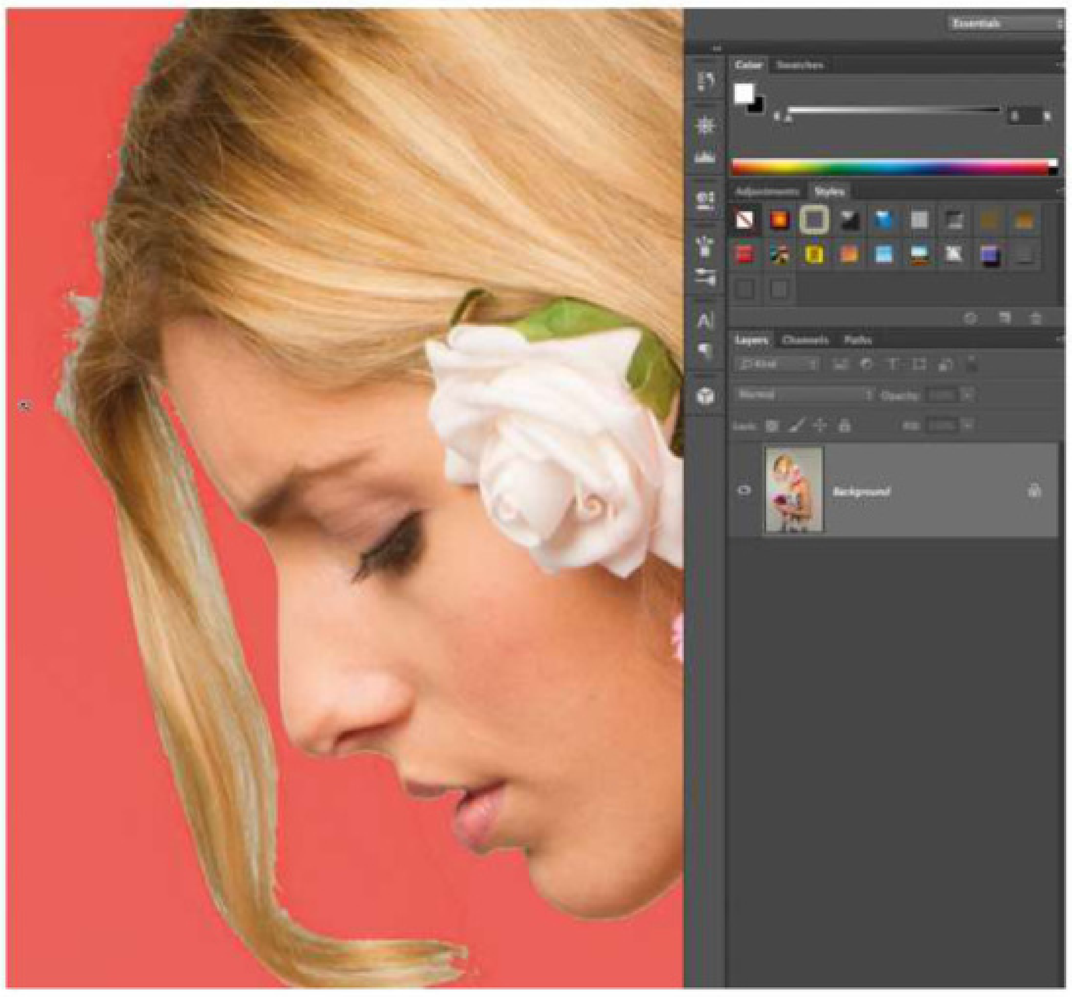






1 Make a selection

Open our TYCC88.jpg starting image. To select the model, use the Magic Wand tool to select the evenly coloured background, as we did on the previous pages. Press Q to add a Quick Mask and use a hard round white brush to remove parts of the woman's clothing from the selection. Use a white brush to add missing bits of backdrop to the selection. Don't worry too much about fine-tuning more complex edges such as her hair at this stage.



2 Examine the edges

Press Q to exit Quick Mask mode. You'll now have most of the background selected. Choose Select›Inverse to select the woman instead of the background. Press Q again. Now the unselected backdrop will appear in red. Use the Zoom tool to take a closer look at the edges of the selection. You'll see a jagged edge around the hair. Some hairs will be missing from the selection. Press Q to exit Quick Mask mode.



3 Get smart

Go to Select›Refine Edge. The Refine Edge window will appear. Set the View Mode to On Black. This black background enables you to see the jagged edges around the selected subject more clearly. To soften the edges, tick the Smart Radius box and increase the Radius to 2.5. There are still some hairs missing from the selection. Grab the Refine Radius tool. In the Options bar, set Size to 60.



4 Refine Radius

Paint with the Refine Radius tool around the edges of the subject's hair. The tool will analyse the difference between the fine hairs and the backdrop's colour. It will then add more of the fine hairs to the selection as if by magic! Don't paint over sharper lines such as the edges of the face. If the Refine Radius tool eats into a sharper line, select the Erase refinements tool and paint to restore the original selection.



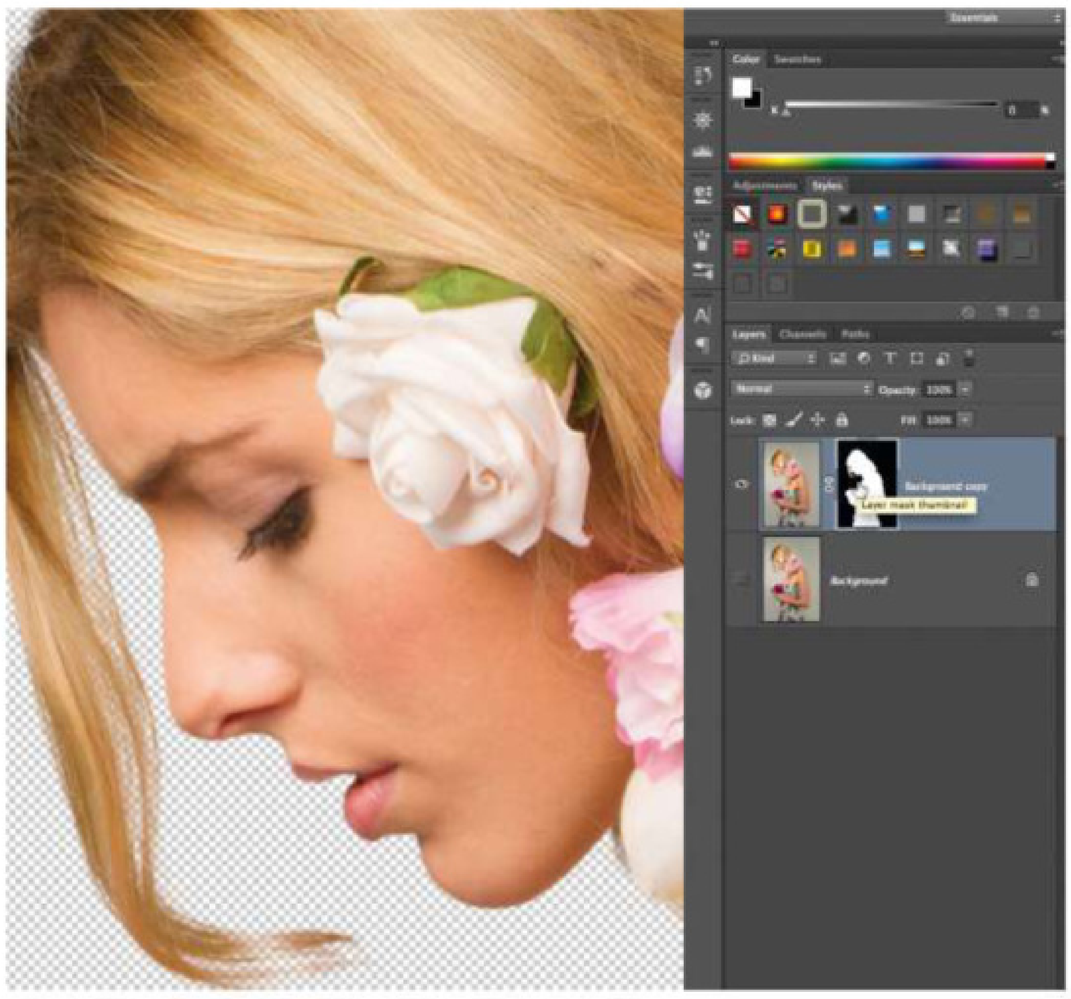
5 Fine-tune the edges

The Smooth slider is very effective at getting rid of blocky selection edges, but it will soften fine details such as hairs, so leave it at 0 for this particular selection. The Feather command softens the entire outline and makes it look less cut out, so set that to 0.8. This provides a balance between smoothing the edges of the subject while preserving the hair detail. Increase Contrast to 9 to sharpen the hairs a little.



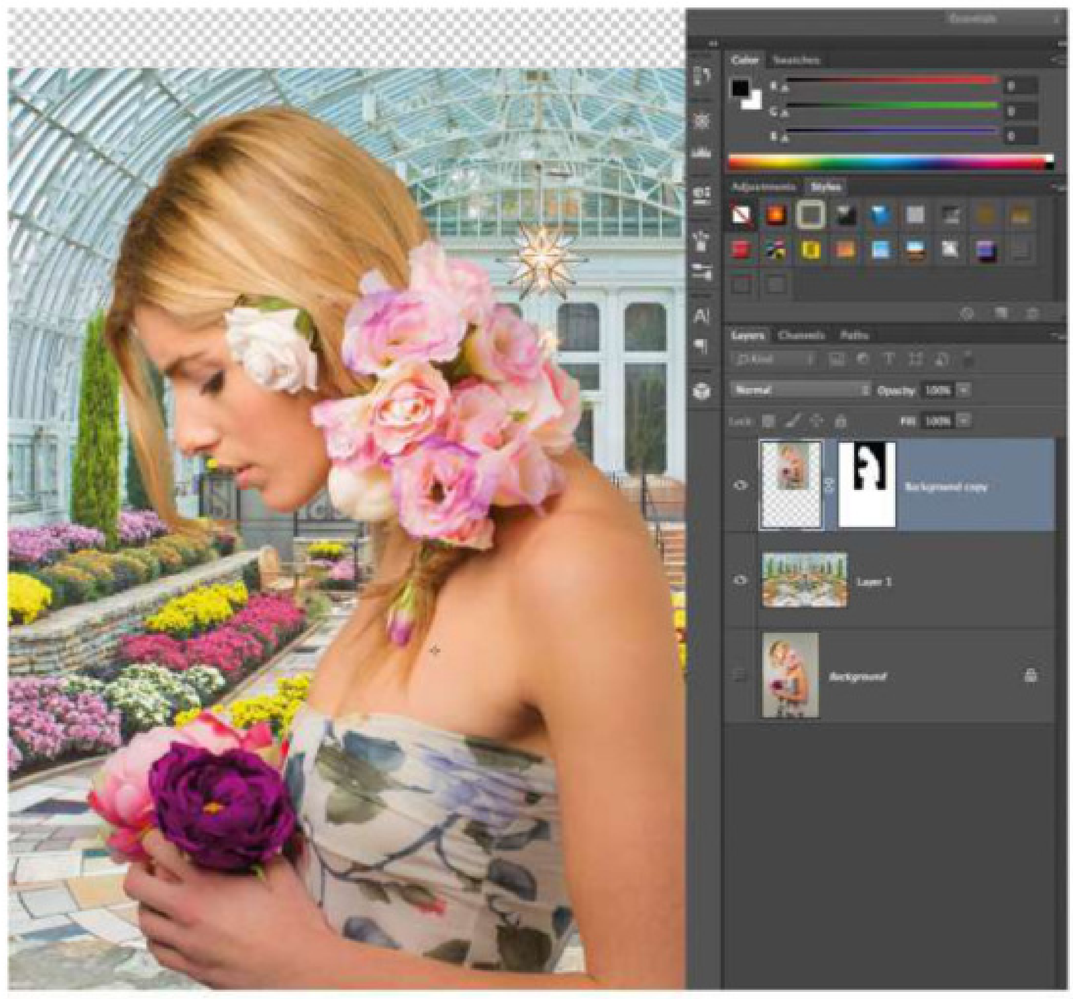
6 Decontaminate the colours

Sometimes you'll see a fringe of unwanted colour from the background clinging to the edges of your subject. To remove this fringe, drag the Shift Edge slider to the left. This tightens the selection marquee in a similar way to the Select›Modify›Contract command. A value of -2 will do the trick in this instance. To diminish the remaining background traces, tick the Decontaminate Colors button. Increase the Amount slider to 68%.



7 Output to a layer mask

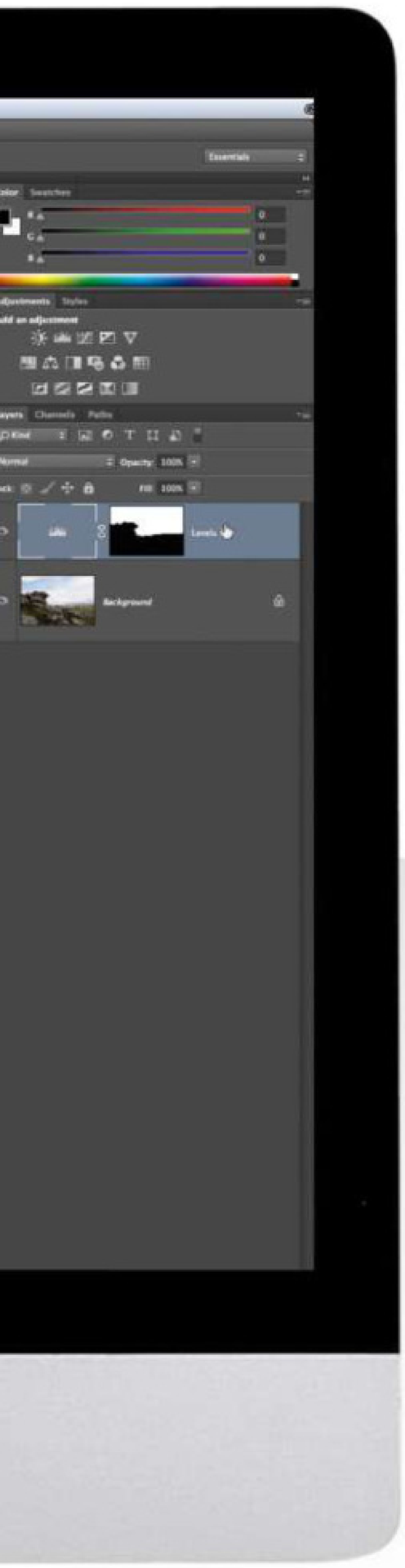
Now that you've refined the edges of the selection marquee to soften it and include more fine hair detail, you can convert it to a layer mask. Layer masks enable you to continue modifying the selection at a later date. We'll look at layer masks in more detail in the next chapter. In the Output section, set the Output To drop-down menu to New Layer with Layer Mask. Click OK to turn the selection into a layer mask.



8 Add the new background

Open TYCC89.jpg. Choose Select›All. Choose Edit›Copy. Go to the TYCC88.jpg document and choose Edit›Paste. The background will appear on a new layer. In the Layers panel, drag the copied layer below the masked layer so that the woman appears to be standing in her new environment. Use the Edit›Transform›Scale command to shrink the woman's layer to fit the background. Crop away the transparent edges. ■


Photoshop File Edit Image Layer Type Select Filter 3D View Window Help
Adobe Photoshop CC
Properties
Levels
Preset: Custom
RGB
Auto
Output Levels: 0 255



Masks and montages

Discover how to take more control over your selections and adjustment layers using layer masks

80 Introducing Photoshop layer masks
Combine selected parts of images non-destructively using layer masks, so you're free to refine the selections at any time

82 Take more control over adjustment layers
Discover how to modify an adjustment layer's mask to target the problematic areas of an image more accurately

84 Make better masks with the Mask Properties panel
Create more effective composites and selective adjustments by adjusting the properties of your layer masks

86 Create paint effects using layer masks
Build up watercolour-style brush strokes on a photo by applying translucent paint to a layer mask

88 Make a simple composite image
Produce a creative composite using a range of selection tools and layer masks to bring the images together

GET THE FILES HERE: http://bit.ly/PMZ34





Introducing layer masks

Combine selected parts of images non-destructively using layer masks, so you're free to refine the selections at any time

Photoshop has plenty of tools that enable you to select parts of images based on properties such as colour or tone. In the case of our starting image, we have a basic sky that can easily be selected with a few clicks using the Magic Wand tool. After selecting the unwanted sky we could double click the background layer to unlock it and then choose Edit›Cut to remove the sky. We could then replace the original sky with something more interesting, such as a dramatic cloudscape. After cutting out the sky they will be permanently deleted from the image layer. If it turns out that you've also selected and deleted the edges of a building, then you won't be able to recover those deleted details. However, by converting a selection into a layer mask you can hide unwanted areas on the attached image layer without permanently deleting them. This enables you to restore missing details from your image layer.

Layer masks turn a selection into a black-and-white image. The white part of the mask makes the corresponding pixels on the attached image layer 100% solid. The black sections of the mask make the associated pixels 100% transparent. You can then paint with black or white on the mask to change which pixels are visible and which are hidden, which enables you to refine the results of any selection tool until they are perfect. Unlike the Edit›Cut command, layer masks are non-destructive. This makes them the key tool in making more effective selections and producing convincing composite images. ■

Photoshop Anatomy Layer masks in action

Hide or show details on an image layer in a non-destructive way

1 SELECTION TOOL

To select the sky in the starting image, grab the Magic Wand tool from the Tools panel. By holding down Shift you can click and select most of the sky's similar-looking pixels as a 'marching ants' marquee.

2 HIDE SELECTION

After selecting most of the sky you can hide the unwanted pixels by choosing Layer>Layer Mask> Hide Selection. This attaches a black-and-white layer mask to the original Background image layer that hides the selection.

3 TRANSPARENCY

Once you turn a selection into a layer mask, the masked (or hidden) pixels are replaced by a chequerboard transparency pattern. You can then drop another image layer into the background to replace the sky in these transparent areas.



4 LAYER MASK

After converting a selection into a layer mask, the black parts of the mask hide the corresponding pixels on the attached image layer. In this case the sky is being hidden. The white parts of the mask make the unselected buildings on the image layer solid.

5 MODIFY THE MASK

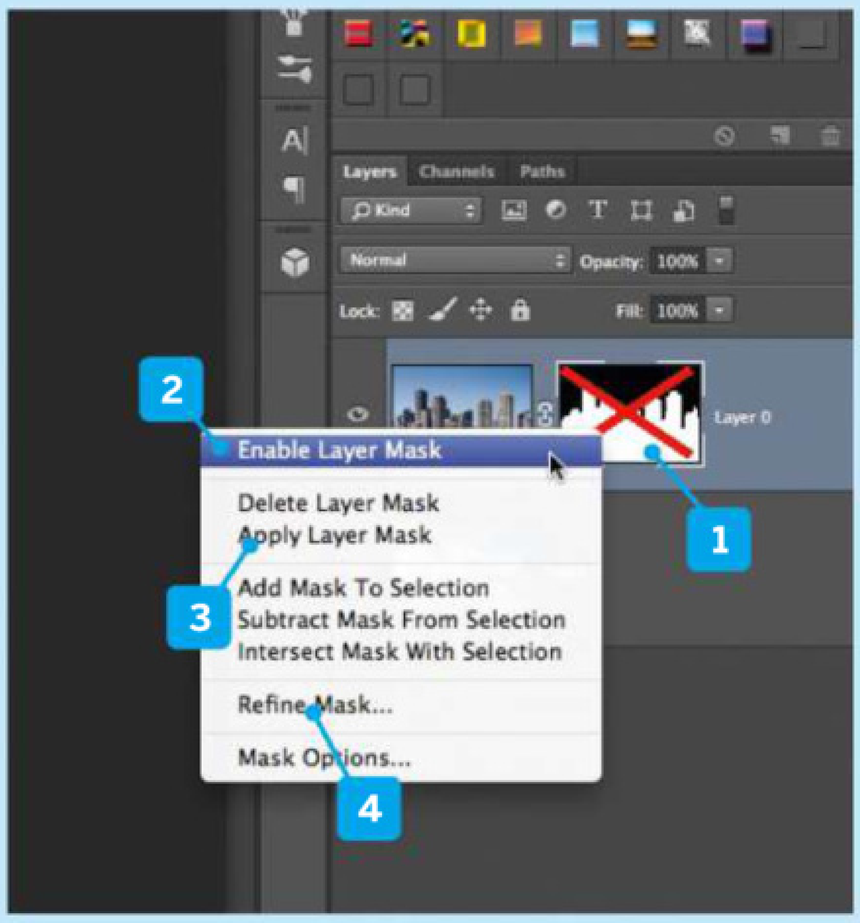
In this example the Magic Wand has failed to select all the sky, so some blue pixels remain after the mask has been created. By painting with a black brush on the layer mask you can hide the remaining unwanted pixels.

6 REVEAL DETAIL

If you want to restore any pixels hidden by the selection tool's initial layer mask, set the Brush tool to white and paint. Hidden details will be revealed. Press X to toggle between a white and black brush to show or hide the pixels until you're happy with the mask.

Understanding... MASK OPTIONS

If you right click a layer mask, a pop-up menu will appear. Here you can disable the layer mask to see the layer's original pixels. A red X will appear when the mask has been disabled **[1]**. You can turn the mask back on using the Enable Layer Mask command **[2]**. If you choose to apply the layer mask **[3]** it will disappear and replace the masked black pixels with transparent ones. In effect, you would be deleting the unwanted image elements permanently. You can also use the powerful Refine Edge command to soften the mask or expand its area of influence **[4]**. We'll cover this tool later.



PAINT LAYER MASKS FASTER

You're not limited to simply painting on a mask with a black or white brush to hide or show pixels. You can quickly hide or reveal larger areas by making selections with other tools. In our annotated screen grab above we used the Brush tool to paint black on the mask to hide the remaining traces of sky. Alternatively, we could have used the Rectangular marquee tool to select the sky at the top. We could then click the layer mask to target it and choose the Edit>Fill command to add black to the selection. This would hide the remaining sky more quickly than painting over it. It also ensures that you don't miss the corners, which is easy to do when using a brush, especially if the opacity is set to less than 100%.

GET THE FILES HERE: http://bit.ly/PMZ34

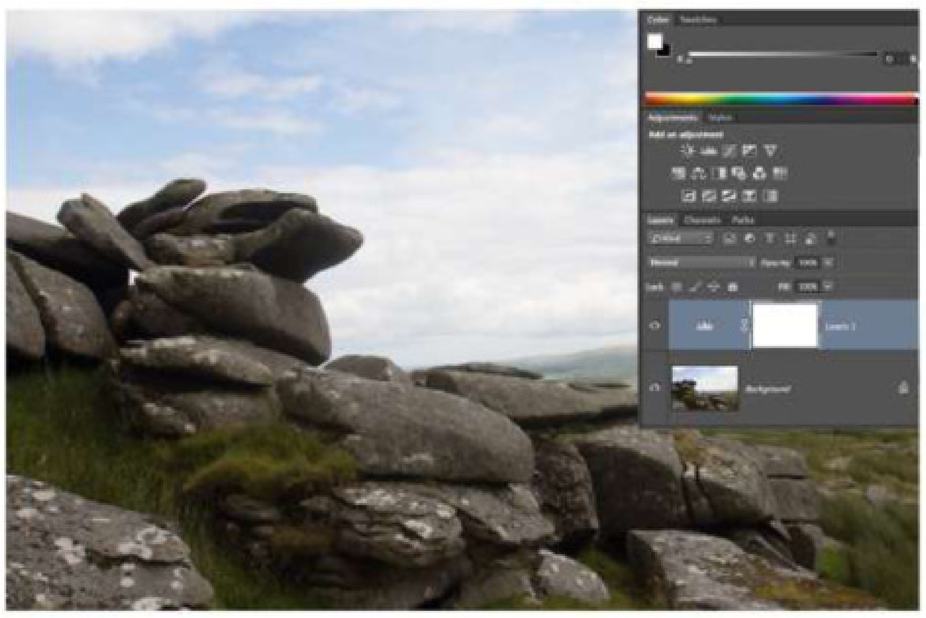
Take more control over adjustments

Discover how to modify an adjustment layer's mask to target the problematic areas of an image more accurately

Layer masks are a powerful tool because they enable you to modify selections made by marquee tools until they are perfect. By painting white or black strokes on a mask you can show or hide pixels on the mask's attached image layer, as we demonstrated on the previous pages. This enables you to hide areas such as an unwanted sky so that you can replace it with a more interesting one from another photo.

As well as being handy compositing tools, masks are also invaluable when it comes to common image adjustments such as revealing blown-out detail in an over-exposed sky. In the case of our starting image we need to darken the over-exposed sky with a Levels adjustment layer to reveal missing detail and colour. However, this will plunge the correctly exposed foreground rocks into silhouette. We can apply black paint to specific sections of the mask so that it only darkens the sky. Like image layer masks, an adjustment layer's mask is non-destructive, so you can modify it using a range of tools and techniques until the adjustment is perfect.





1 Create an adjustment layer

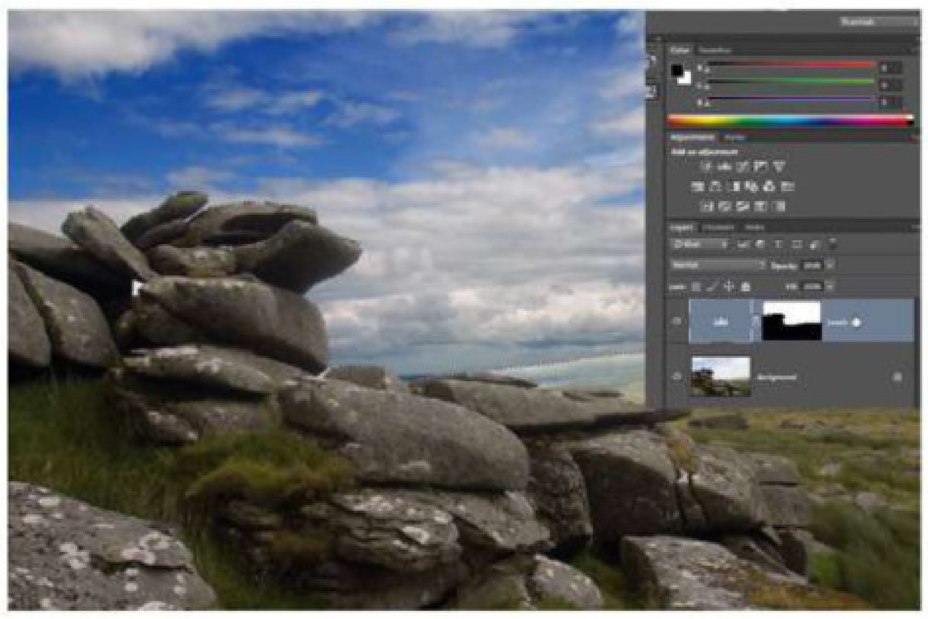
Open the TYCC43.jpg starting image. Due to the contrasting lighting conditions the camera has metered to expose for the rocks, so the sky is over-exposed. To restore sky detail, choose Layer›New Adjustment Layer›Levels. Click OK. A Levels adjustment layer will appear in the Layers panel.



2 Darken the sky

In the adjustment layer panel, drag the grey midtone slider right to 0.30. This dramatically darkens the midtones and reveals more colour and tone in the sky. Drag the Blacks input level slider right to 43. This darkens the shadows in the image even more.





3 Mask the rocks

Grab the Quick Selection tool. Paint over the rocks to select them. Click the mask to make sure that it's targeted. Select Edit›Fill and choose Black from the Use drop-down menu. The black areas on the adjustment layer's mask will stop it from altering the rocks.



4 Modify the mask

Press Cmd/Ctrl+D to deselect the rocks. Some of the sky is isolated inside rock gaps, so it's been excluded from the adjustment. Grab the Brush tool. Paint with a small white brush on the mask to make the adjustment layer darken the remaining over-exposed sky pixels. ■

GET THE FILES HERE: http://bit.ly/PMZ34

Make better layer masks

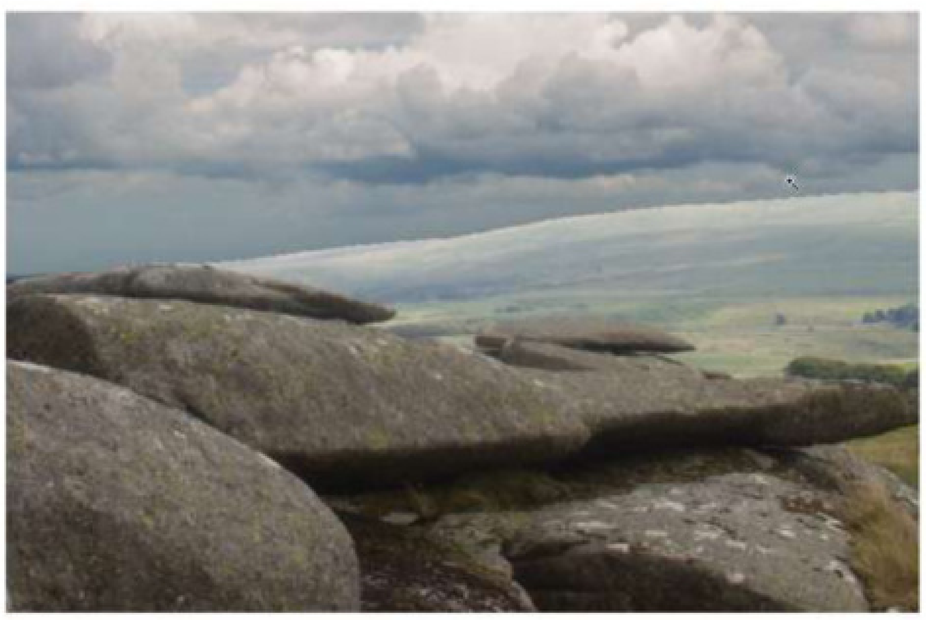
Create more effective composites and selective adjustments by adjusting the properties of your layer masks

On the previous pages we turned a marquee selection into a mask to fix a photo more effectively. The white sections on the mask enabled the Levels adjustment layer to darken the photo's over-exposed sky. The black areas on the mask prevented the correctly exposed rocks from being darkened by the adjustment layer.

If you zoom in to examine the border between the rocks and the sky you'll see that there's a sharp, jagged line. This is caused by the sharp-edged selection marquee we created to protect the rocks. You could try to soften this sharp edge by clicking the adjustment layer's mask to target it and then painting with the Blur tool along the edges to soften them.

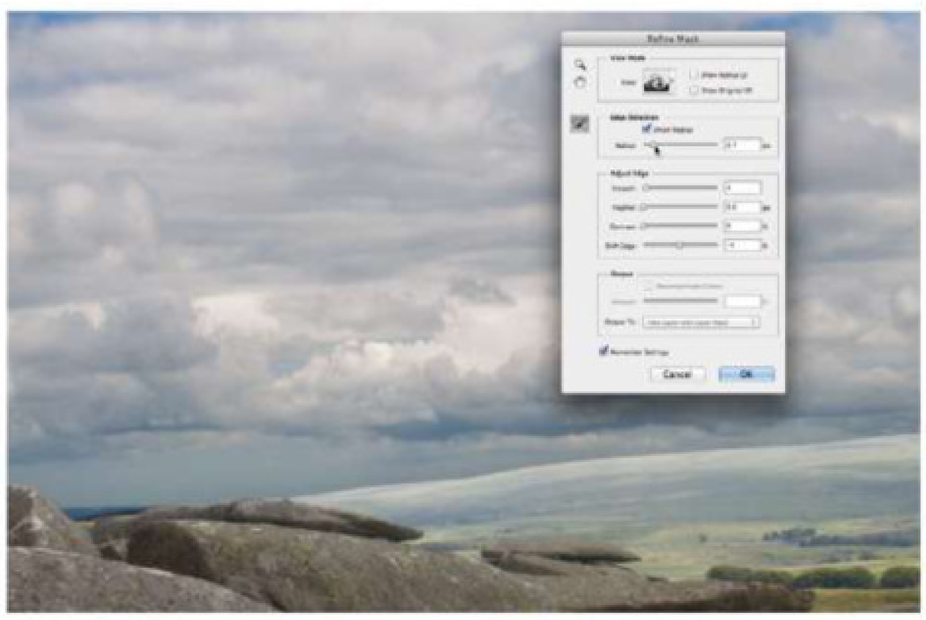
Alternatively, you could click the Masks icon in the Properties panel to modify the mask. We'll show you how to use the Mask Properties panel to refine the edges of the mask so that the darkened sky and the masked rocks blend together more effectively. You can also use the Mask Properties to improve image layer masks.





1 Zoom in

After following the steps on the previous pages to darken the sky and protect the rocks, grab the Zoom tool and click to take a closer look at the horizon. The masked area creates a jagged line that indicates that the image has been retouched. We need to soften this line.



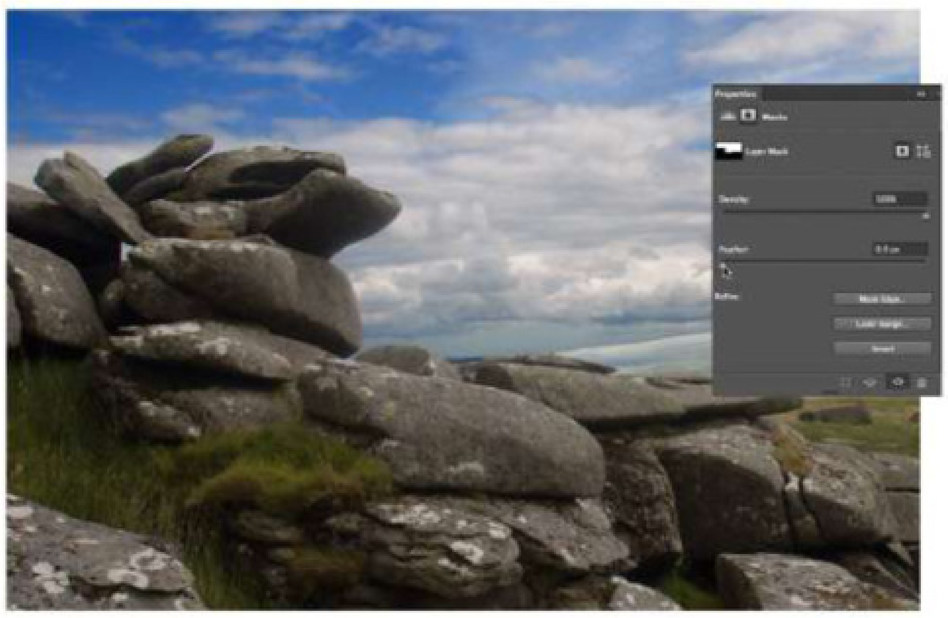
2 Refine the mask

Click the Levels adjustment layer to open the Properties panel. Click the mask to see the Mask Properties. Click the Mask Edge button. Set View Mode to On Layers so you can see the pixels of the photo. Smooth the jagged edge by ticking Smart Radius and setting Radius to 2.7.



3 Apply the refinements

By default the Output to option is unhelpfully set to a greyed out command – New Layer with Layer Mask. You need to set this drop-down menu to Layer Mask to apply the refinements you've made. Click OK and the mask's jagged edge will be softened.



4 Apply a feather

The Masks Properties panel also enables you to soften the edges of the mask by adjusting the Feather slider. This tool is more useful when adjusting the mask of a composited object so that it blends more effectively with neighbouring pixels on a background layer. ■

GET THE FILES HERE: http://bit.ly/PMZ34

Make a painting

Apply translucent paint to a layer mask to build up watercolour-style brush strokes on a photo

Layer masks enable you to show or hide pixels in a non-destructive way, so they're very effective at fine-tuning photo fixes. You can also use layer masks in a more creative capacity, as you'll see in this walkthrough.

By hiding an image layer with a black mask, you can then apply a translucent brush tip to the mask. These grey strokes will create a gentle wash of colour and detail taken from the hidden picture. If you overlap the strokes then you'll create a lighter section on the mask that enables the corresponding parts of the image layer to become more solid and more colourful. You can alter the density of the paint by adjusting the opacity. This allows you to build up layers of colour in a way similar to applying multiple watercolour brush strokes on a piece of paper. The beauty of this mask-based technique is that you can create an effective photo painting with a few swipes of the Brush tool, without possessing any painting skills.



1 Prepare your layers

Open TYCC21.jpg. In the Layers panel, double click the Background layer to unlock it. Choose Layer›New›Layer. Click OK. Go to Edit›Fill. Set the Contents Use drop-down menu to White. Click OK. Drag the white Layer 1 behind the image Layer 0 in the Layers panel.



2 Set up the brush

Click Layer 0. Choose Layer›Layer Mask›Hide All. A black mask will appear that hides the pixels on the attached image layer. Grab the Brush tool. Click the Brush Preset picker in the Options bar. Scroll down and choose the Wet Sponge tip. Set Opacity to 25%. Set Size to 400.



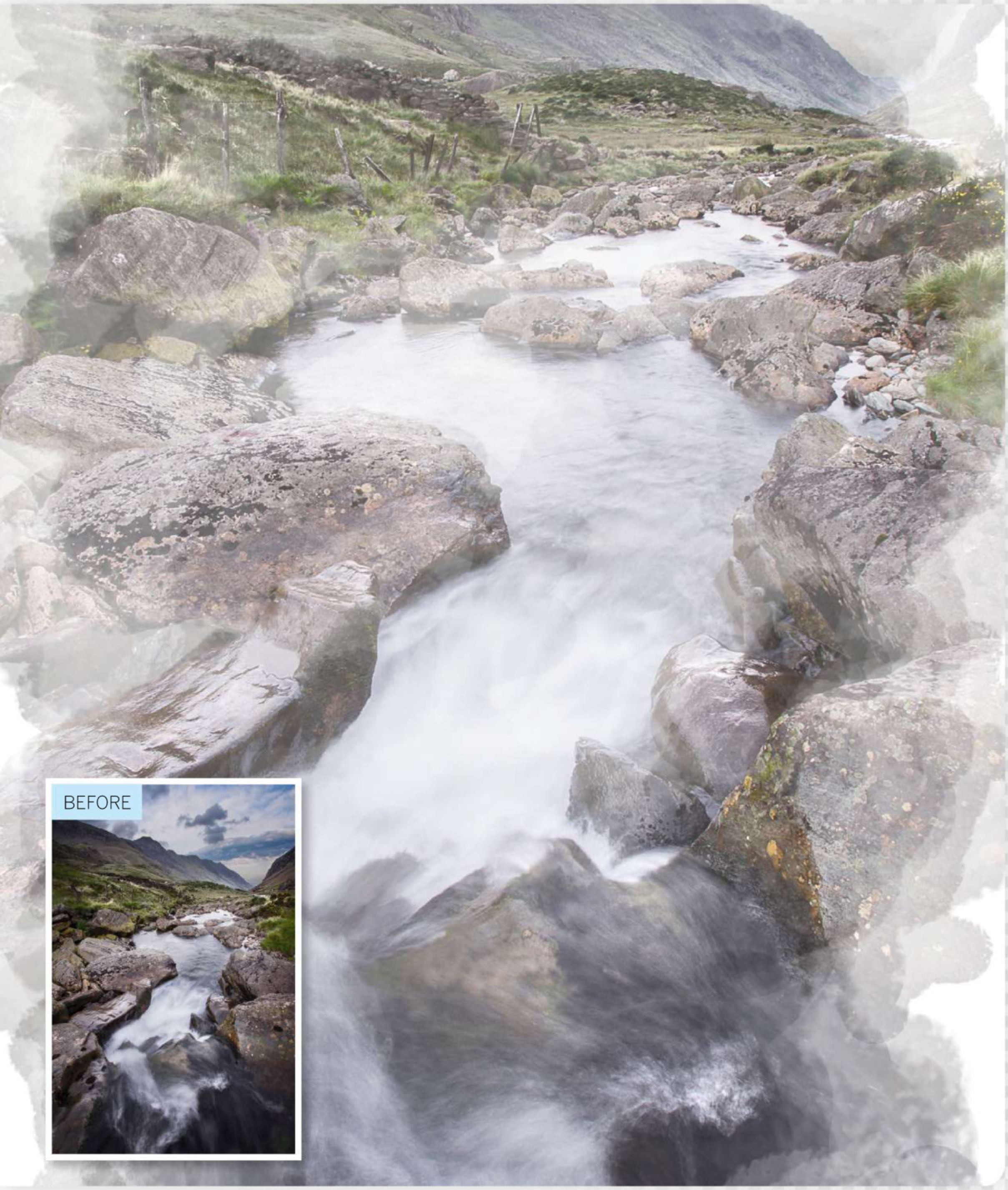
3 Add a wash of colour

Click the layer mask. Make sure that the foreground colour is white. Paint with the large brush over the mask. The 25% opacity setting will create a grey stroke that reveals a fine wash of colour from the image layer. The rough edge of the brush tip creates a watercolour brush texture.



4 Overlap the strokes

Click to paint once again. Wherever you overlap the brush strokes they get lighter on the mask, revealing more colours from the corresponding parts of the image layer. Keep painting to build up a mix of paint-like colours and textures. Change the brush size and opacity to add variety. ■



BEFORE

GET THE FILES HERE: http://bit.ly/PMZ34

Make a simple composite image

Produce a creative composite using a range of selection tools and layer masks to bring the images together

Photoshop has a wide range of selection tools that enable you to take objects from different source images and combine them together to produce something new, such as this photorealistic fantasy landscape. As you experiment with different selection tools you'll discover their strengths and weaknesses, and this experience will enable you to reach for the appropriate tool when faced by a particular selection challenge, such as isolating a detailed tree from a busy background. You could try using the Color Range command to select the sky, and then invert the selection to isolate the tree. Alternatively, you could try a channel-based technique to help you make a quicker and more effective selection.

Photoshop recreates the colours of a photo by mixing the red, green and blue channels together. It can be tricky to select the tree in our starting image, but by accessing one of the three RGB channels you can find a version of the image in which the tree has more contrast. This contrasting version will be easier to select.

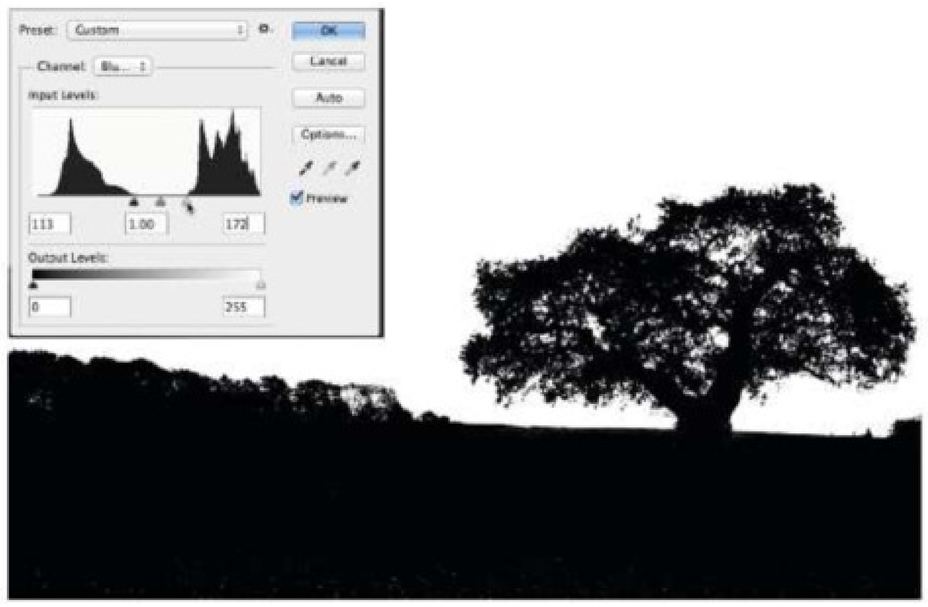
We'll also demonstrate how to get selection and masking tools to work together so that you can create effective composites and montages more quickly and easily. You'll also learn how to get the separate layered elements to look like they belong in the same scene using a variety of compositing tricks and techniques such as adding shadows and unifying colours and tones.





1 Choose a channel

Go to File›Open and browse to the TYCC87.jpg starting image. Click Open. Click the Channels panel (to the right of the Layers panel). Click each channel in turn to examine them. The Blue channel features the most contrast between the tree and the sky. Click that channel.



2 Increase the contrast

Drag the Blue channel onto the Create new channel icon at the bottom of the panel to duplicate it. Choose Image›Adjustments›Levels. Drag the black input level slider to 113 to crush the shadows. Drag the white input level slider to 172 to blow out the highlights. Click OK.



3 Select the tree

Click the Load channel as selection icon. Choose Select›Inverse. Click the RGB channel. Grab the Quick Selection tool. Click the Subtract from selection button. Paint to remove the field from the selection. Click the Add to selection button and paint to include the base of the tree.



4 Refine the selection

Click the Refine Edge button. Increase Radius to 1.0. Drag Shift Edge to −22 to remove the fringes of sky clinging to the branches. Tick Decontaminate Colors and set Amount to 64%. Paint around the base of the tree with the Refine Radius tool to select the grass. Click OK.



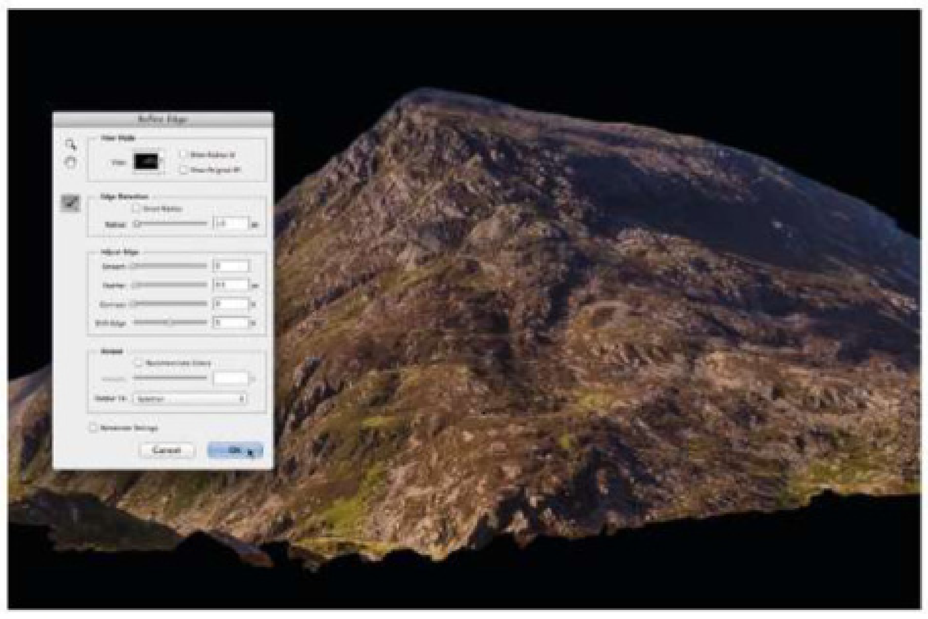
5 Add the tree to the sea

Click the Layers panel. Open TYCC90.jpg. Choose Select›All and then Edit›Copy. Go to the isolated tree document and choose Edit›Paste. Drag the sea layer below the tree layer in the Layers panel. Crop away the transparent corners.



6 Transform the tree

Click the tree layer to select it. To help the lighting on the tree match the light source in the background, choose Edit›Transform›Flip Horizontal. Choose Edit›Free Transform and drag the bounding box to scale down the tree. Drag outside the box to rotate it a little. Hit Enter.



7 Select the mountain

Open TYCC86.jpg. Grab the Quick Selection tool. Click the New selection icon in the Options bar. Make a rough selection over the mountain. Click Refine Edge and increase Radius to 1.0. Set feather to 0.5. Set Output to selection. Click OK. Copy the refined selection.



8 Flip the mountain

Go to the layered document and choose Cmd/Ctrl+V to paste the mountain into a new layer. Drag the mountain layer below the tree layer. Press Cmd/Ctrl+T. Right click inside the bounding box and choose Flip Vertical to turn the mountain layer upside down.



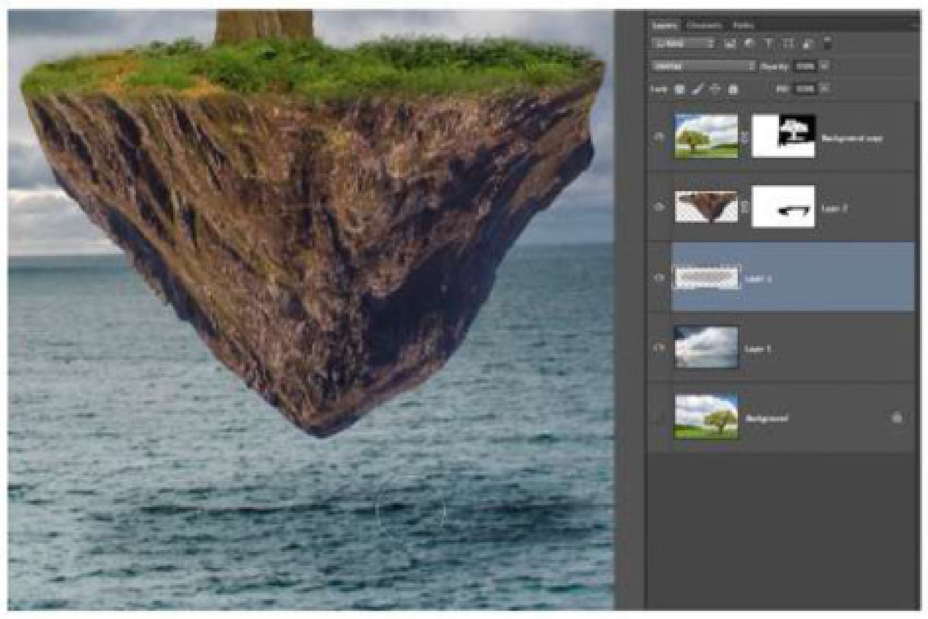
9 Transform the mountain

Drag the Free Transform bounding box's corner handles to squash, scale and rotate the mountain so that it fits below the tree. Hit Enter. Go to Edit›Transform›Warp. Drag inside the warp mesh to make the mountain fit below the tree more effectively. Hit Enter.



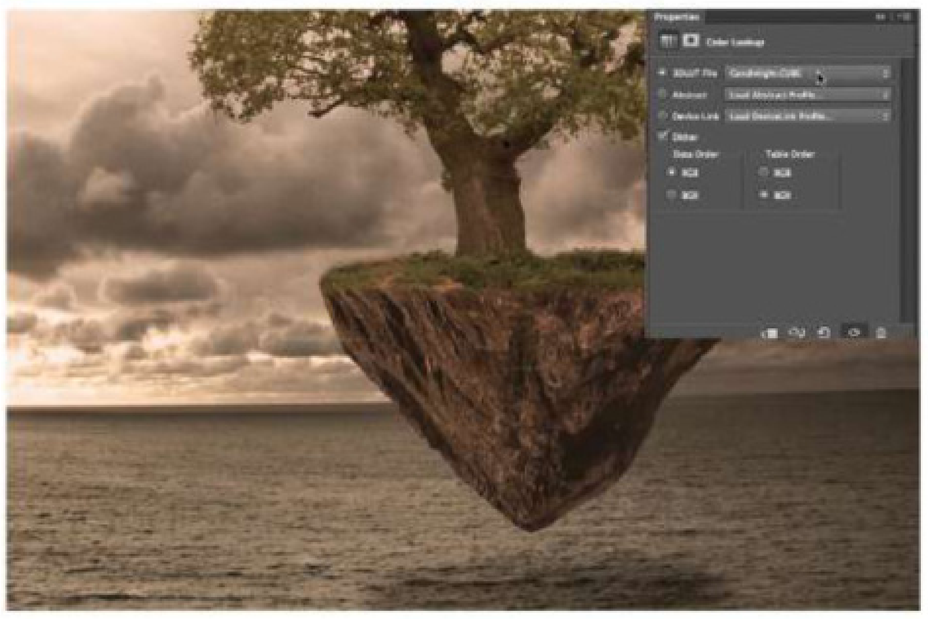
10 Modify the mask

Choose Layer›Layer Mask›Reveal All. Grab the Brush tool. Choose a hard round brush tip from the Brush Preset picker. Click the mask. Set the foreground colour to black. Paint to hide any unwanted bits of mountain so that it fits nicely with the grass from the tree layer.



11 Add a shadow

Choose Layer›New›Layer. Click OK. Place the new layer below the mountain layer. Grab the Brush tool. Choose a soft round brush tip from the Brush Preset picker. In the Options bar, set Opacity and Flow to 50%. Paint a shadow on the sea. Set the Blend mode to Overlay.

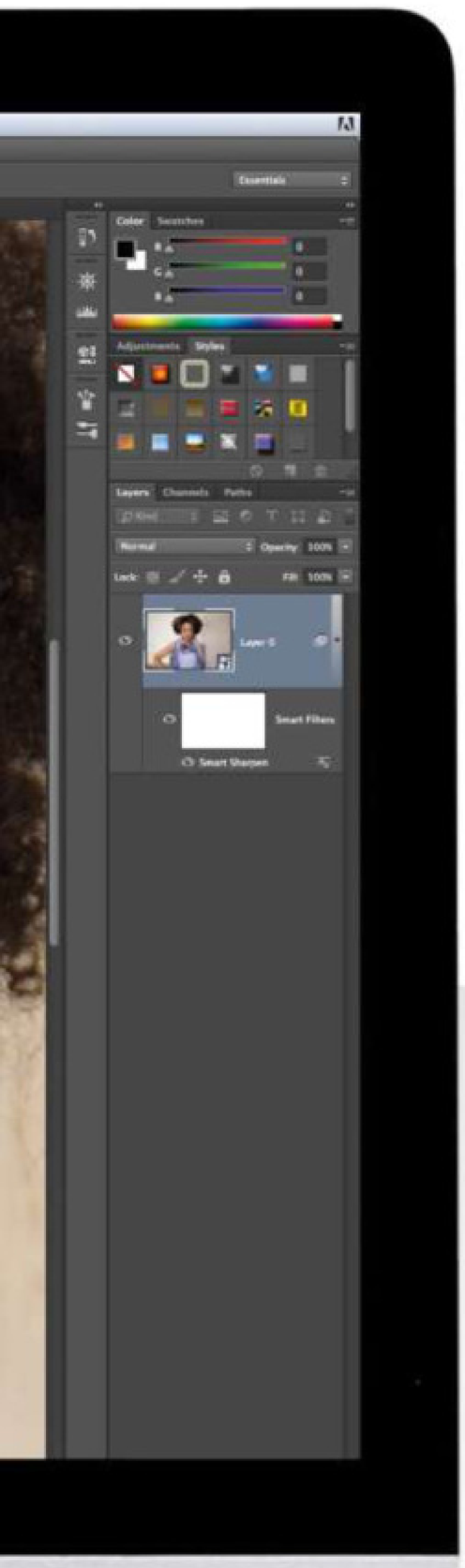


12 Unify the colours

Choose Layer›New Adjustment layer›Color Lookup. Tick the 3DLUT button. Set the menu to Candlelight.CUBE. Reduce the layer's opacity to 70%. Choose Layer›Flatten Image. Go to Filter›Camera Raw Filter. Increase Clarity to +63 and boost Vibrance to +30. Click OK. ■

PHOTOSHOP FILTERS





Photoshop filters

Transform your photos quickly and easily using one of Photoshop's many powerful processing filters

94 Apply editable filter effects
Once filters are applied to layers, their effects can be edited later if you first convert the image layer to a Smart Object

96 Edit JPEG images in Camera Raw
Apply Camera Raw's tools to a compressed JPEG by converting the image with the Camera Raw filter

98 Improve images with controlled blur
Discover how to add creative and selective blur effects to your images using Photoshop's Blur Gallery

100 Add creative effects to your photos with filters
Learn how to apply different artistic filters to your photographs, and modify their properties to produce unique looks

106 Sharpen up your images
Discover how to make your images appear crisp and sharp, even those blighted by camera-shake blur

GET THE FILES HERE: http://bit.ly/PMZ34

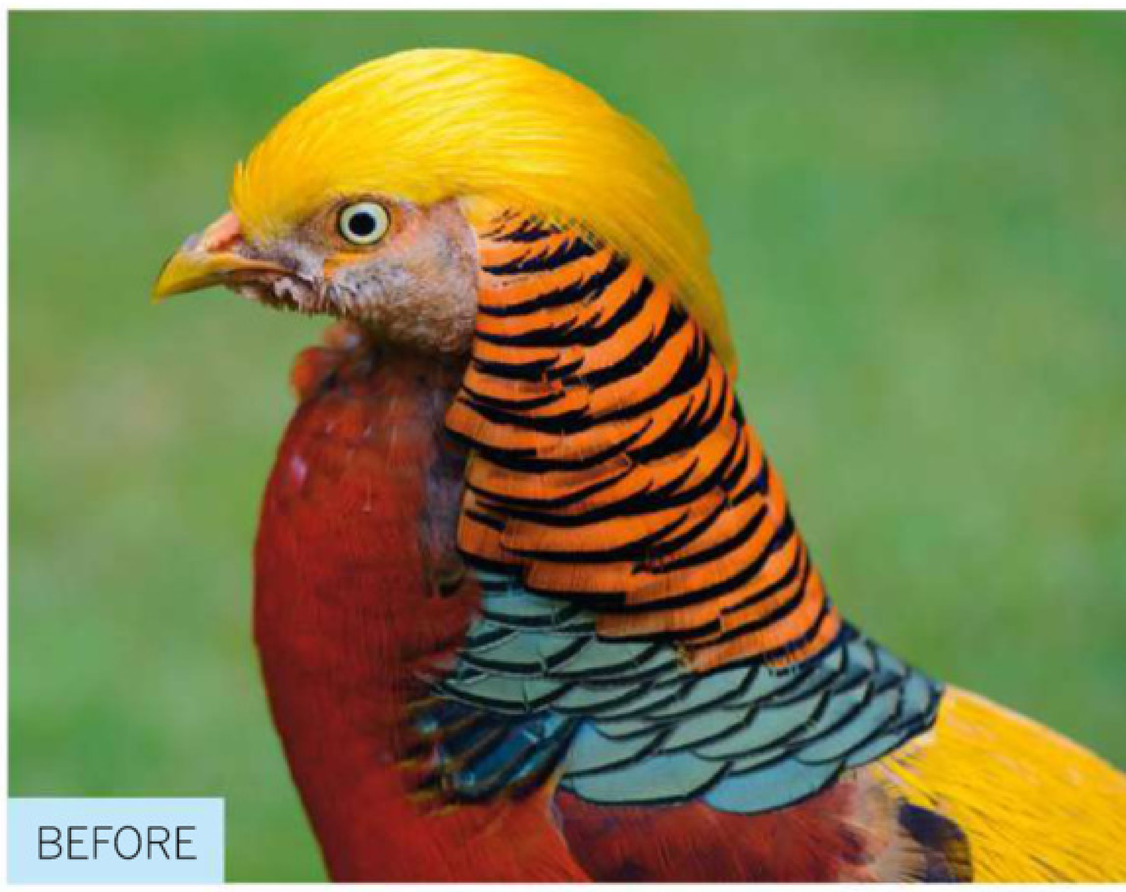
Apply editable filter effects

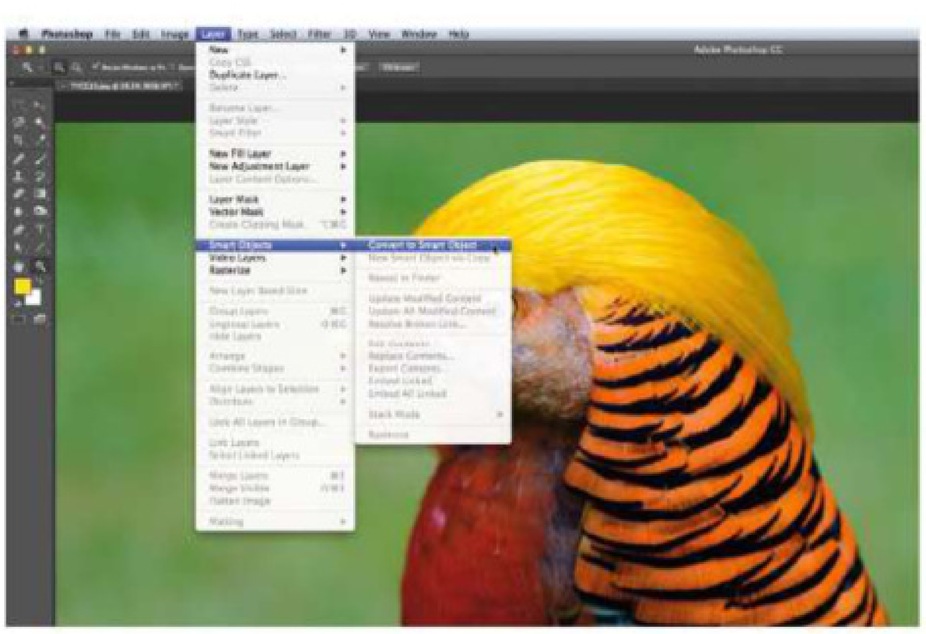
Once filters are applied to layers, their effects can be edited later if you first convert the image layer to a Smart Object. Here's how...

In chapter 4 we demonstrated how to adjust colours and tones by using adjustment layers. These layers sit above the original image layer, so you can fine-tune their sliders at any time. Adjustment layers enable you to edit in a non-destructive way, because the picture's original colours and tones are always available on a separate layer.

For more non-destructive editing options you can convert an image file into a Smart Object. This smart version of the file remembers its original properties, such as the colour and tone. You can then make changes using menu commands that aren't available as adjustment layers, such as Photoshop's huge range of filters, safe in the knowledge that the file's original look can be recovered at any time, even after you close and then reopen the document.

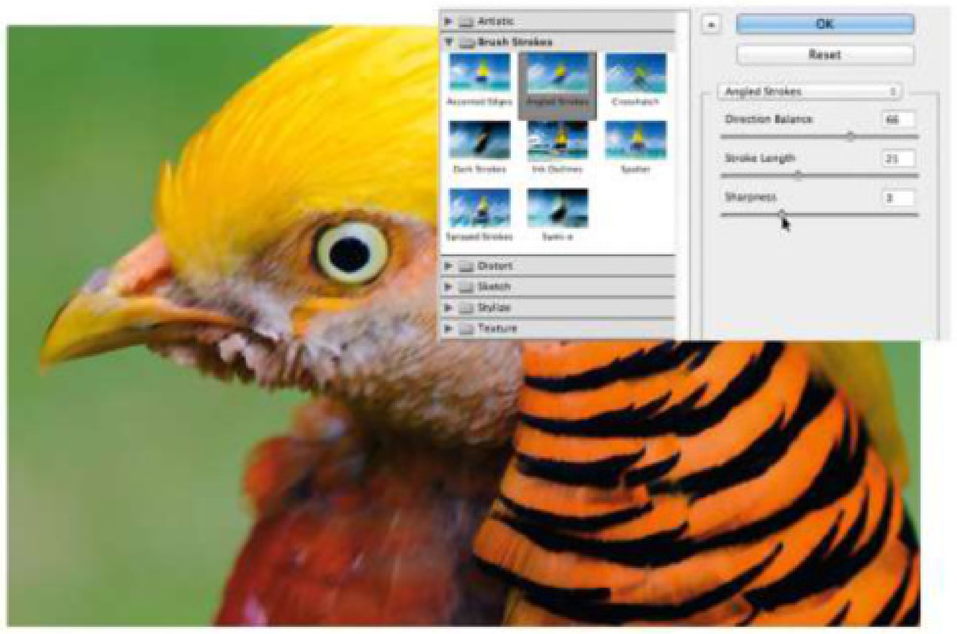
Smart Objects enable you to apply non-destructive filters to an image to create a wide range of artistic looks. This is much more useful than applying a filter directly onto an image layer, because you'd be stuck with the results it produces. Once a filter becomes smart, you can access and tweak it at any time to refine its effect on the image. Here's how to make an image smart so that you can enjoy the creative freedom provided by Smart Filters.





1 Convert to a Smart Object

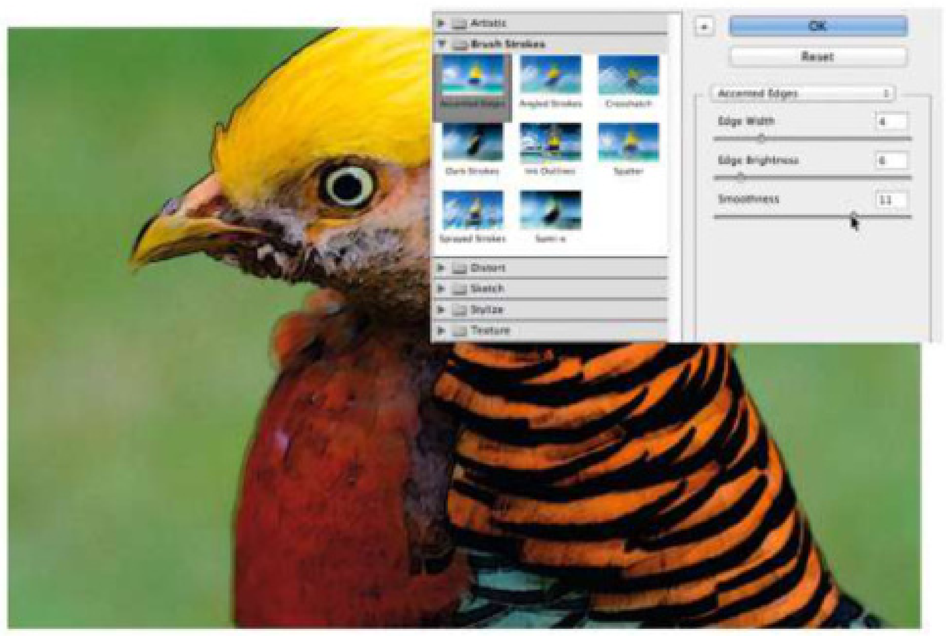
Open our TYCC23.jpg starting image. Go to Layer›Smart Objects›Convert to Smart Object. In the Layers panel you'll notice a Smart Object icon appears at the bottom right of the image thumbnail. Behind the scenes, Photoshop has created a PSB document that stores the original image.



2 Apply a filter

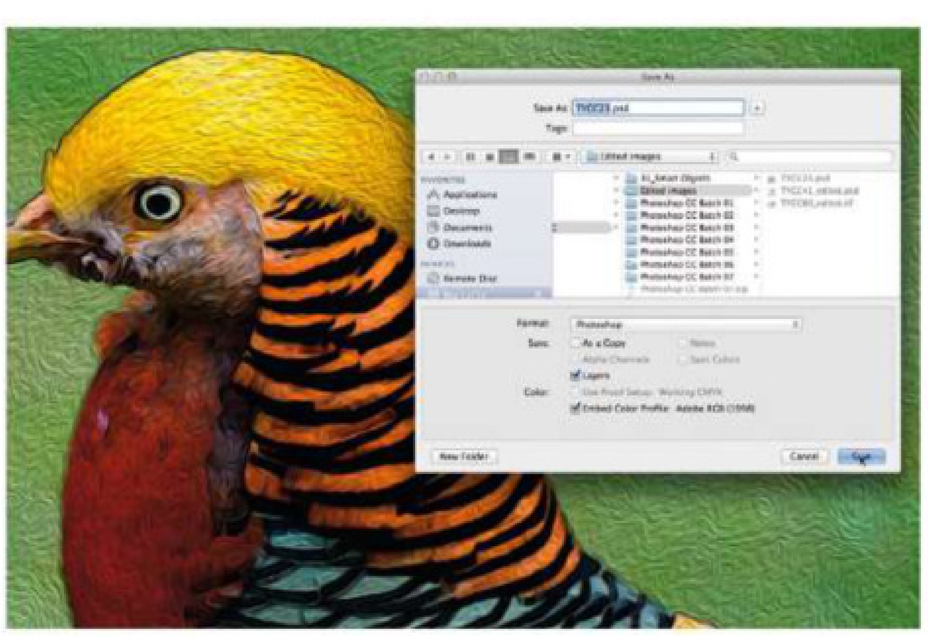
Go to Filter›Filter Gallery. Toggle open the Brush Strokes folder and click the Angled Strokes thumbnail. Set Direction Balance to 66, Stroke Length to 21 and Sharpness to 3. Click OK. In the Layers panel, you'll now see a Smart Filter layer that contains a Filter Gallery option.





3 Apply a second filter

In the Layers panel, double click the Filter Gallery effect name to relaunch it. You can fine-tune the Angled Stroke filter to refine the look. Click the New Effect Layer icon. Click the Accented Edges thumbnail. Set Edge Width to 4 and Edge Brightness to 6. Click OK to apply.



4 Save a layered document

Go to Filter›Oil Paint. Set Stylization and Cleanliness to 10, Scale to 4 and Bristle Detail to 0. Click OK. You can access and tweak the Oil Paint or Filter Gallery effects by doubling clicking their labels at any time. Choose File›Save and set Format to Photoshop to preserve the Smart Filters. ■

GET THE FILES HERE: http://bit.ly/PMZ34



Edit JPEG images in Camera Raw

Apply Camera Raw's tools to a compressed JPEG by converting the image with the Camera Raw filter

In chapter 2 we examined the processing tools in Camera Raw. These tools are designed to work with uncompressed raw files, but you can apply them to compressed JPEGs too. JPEGs lack the extra colour and tonal information in a raw file, but you can still use Camera Raw's tools to work on it. Indeed, older versions of Photoshop (such as CS3) allowed you to sneak a lowly JPEG into Camera Raw by choosing File›Open.

Later versions of Photoshop are designed to make it quicker and easier to edit JPEGs in Camera Raw. The Filter menu has a new Camera Raw Filter option that launches the currently open JPEG into the raw editor.

By editing a JPEG in Camera Raw you have a cleaner image-editing environment. The raw editor is a digital darkroom that's designed to help you improve the colours, tones and composition of an image. It places the most useful photo-fixing tools close to hand, so you can work more quickly when processing your images. The raw editor's histogram also enables you to identify clipped areas more easily so you can restore missing tonal detail. It's a more fiddly process to spot clipped pixels in the standard editor, as you'll see in chapter 8. The raw editor also provides a quicker and easier way to increase midtone contrast than the standard editor, so it's well worth a look even if you don't shoot in raw.



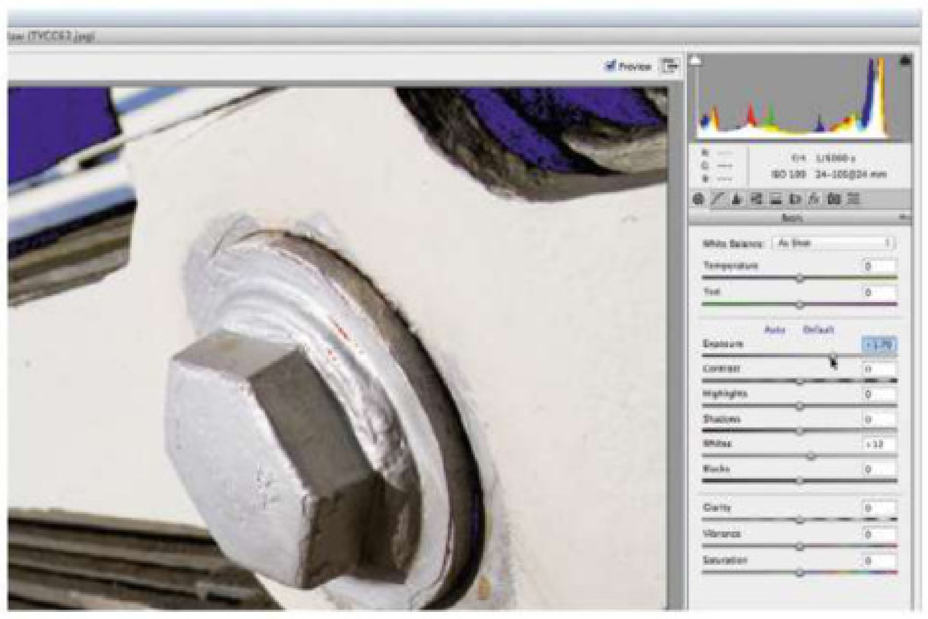
1 Open the image

Go to File›Open and browse to TYCC63.jpg. Click Open. This image is a compressed JPEG file, so it will open in the standard Photoshop editing workspace. To tweak this under-exposed and desaturated image in Camera Raw, choose Filter›Camera Raw Filter.



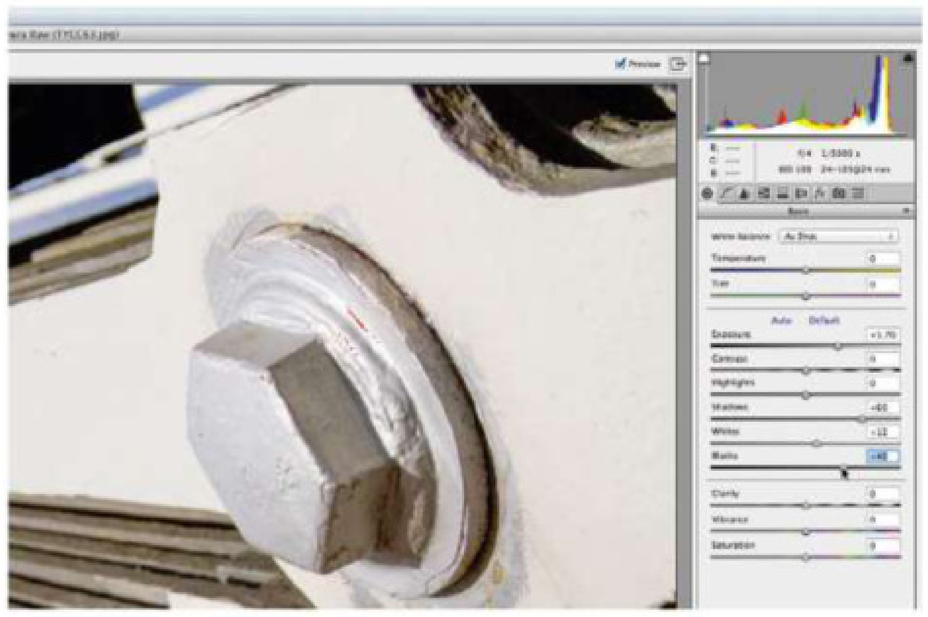
2 Examine the histogram

We can see from the histogram that the image lacks strong highlights, so it's under-exposed. By clicking the Shadow Clipping warning icon, we can see that many of the shadows are clipped. These blue patches indicate areas that will print without any detail.



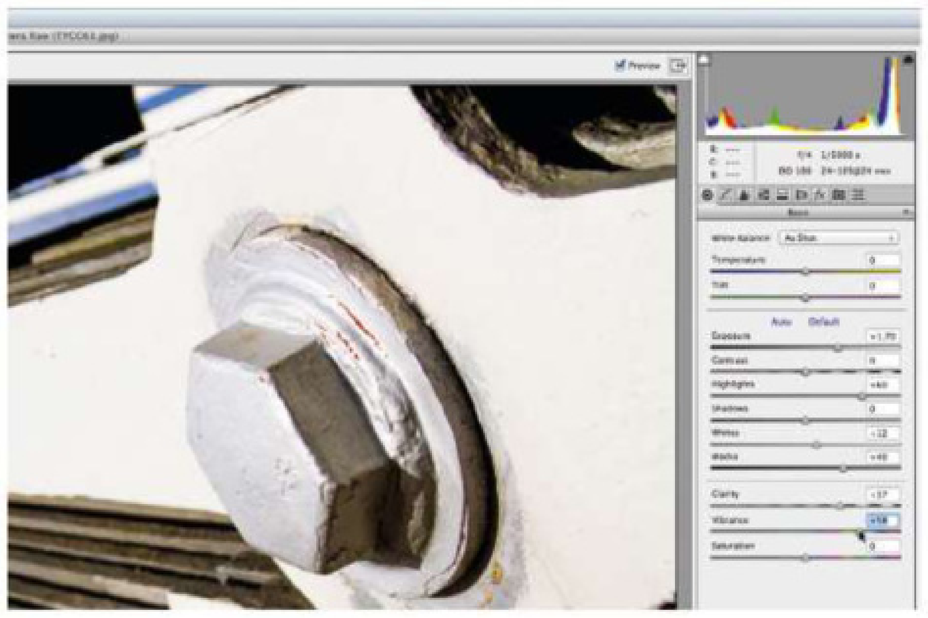
3 Increase Exposure

To remap the under-exposed midtones and highlights to a brighter value, drag the Exposure slider to +1.70. The graph will slide towards the right, indicating the presence of brighter pixels. Push Whites to +12 until a little highlight clipping appears as patches of red.



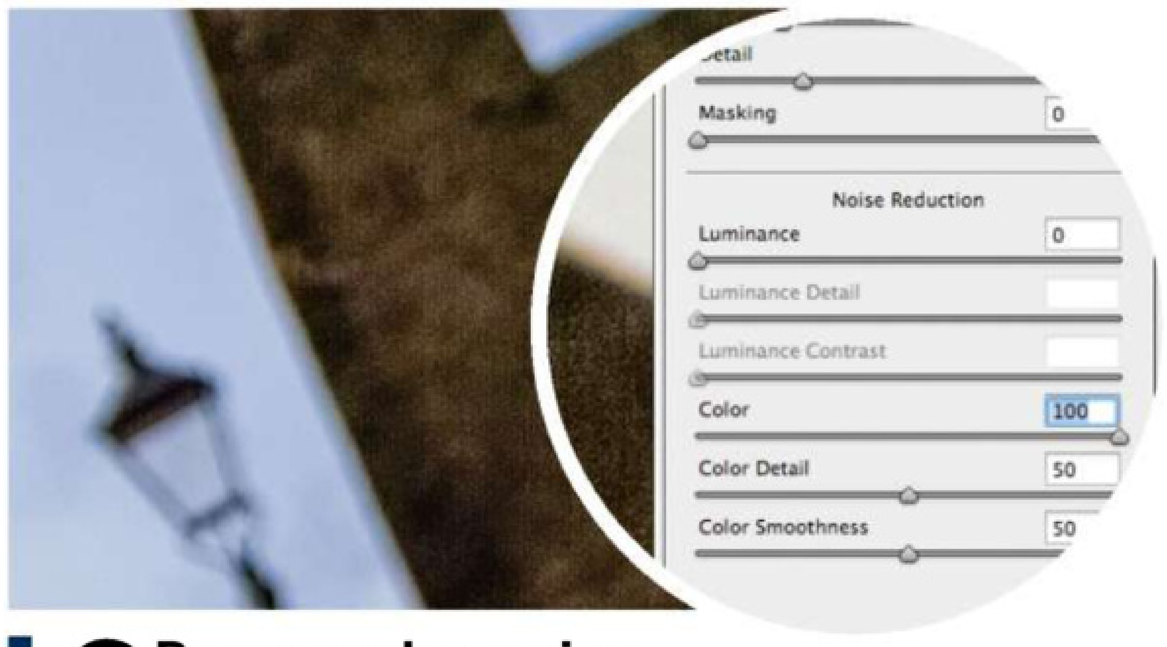
4 Lighten the shadows

Selectively lighten the shadows by dragging the Shadows slider up to +60. Reduce the presence of clipped shadows a little more by dragging Blacks to +40. Press U to remove the remaining shadow clipping warning patches. We now have a better exposed JPEG.



5 Increase the midtone contrast

To give some of the fine textures on the weathered metal more impact, increase the midtone contrast by dragging Clarity to +37. This technique is much harder to reproduce in the standard Photoshop workspace. Create a more vibrant blue sky by dragging the Vibrance slider to +58.



6 Remove colour noise

Lightening the shadows of a JPEG creates artefacts and undesirable colour noise. Click the Detail panel. In the Noise Reduction section, drag Color to 100. This removes the colour noise. Click OK to commit the changes and return the edited file to the standard Photoshop workspace. ■

GET THE FILES HERE: http://bit.ly/PMZ34

Improve images with controlled blur

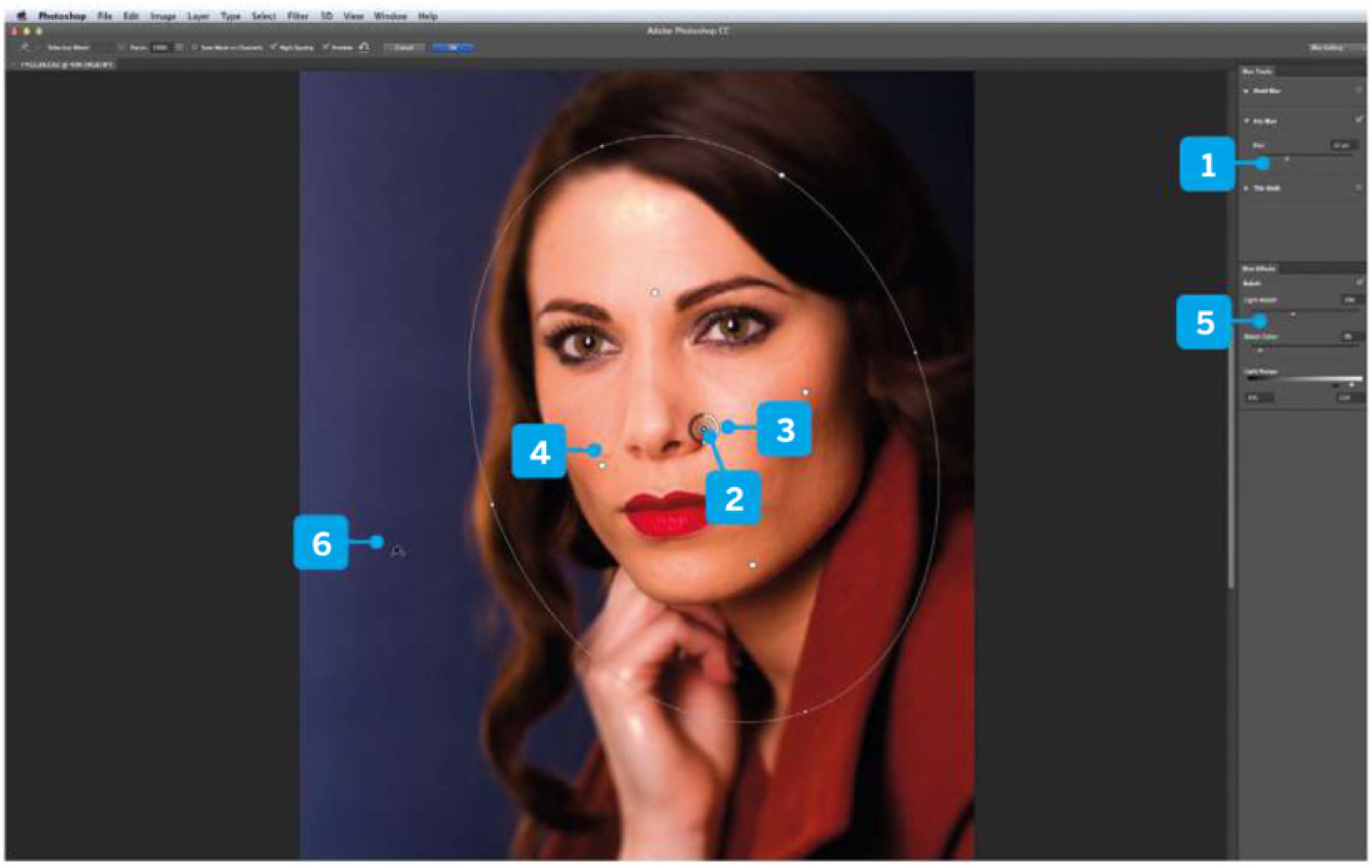
Discover how to improve your photographs by adding creative and selective blur effects using the Blur Gallery

When you capture an image on a digital SLR you can add in-camera blur effects to enhance your images. By using a wide aperture setting such as f/2 you create a shallow depth of field, for instance. This makes the focal point, such as the face in a portrait, look nice and sharp, while blurring out the distracting background elements.

If you have a tilt-shift lens you can take even more control over where blur appears in your images. This specialist lens enables you to create a narrow band of focus sandwiched between two blurred sections. This narrow band of focus mimics the effect you get when shooting a small subject close up, which makes life-size scenes look like scale models. Producing good selective-focus or tilt-shift effects in camera can be tricky, so we'll demonstrate how to create these effects using Photoshop's Blur Gallery. This gives you more control over the strength and location of blur in any image, which helps you avoid the hit-and-miss approach of capturing blur in camera. The Blur Gallery's Field Blur filter adds a natural-looking lens blur to the entire image. Here's how...

Overview Create a background blur

Use the Blur Gallery's Iris Blur filter to reduce the impact of background distractions



1 IRIS BLUR

Go to the Filter menu and choose Blur. The top section of the Blur menu features the Blur Gallery – Field Blur, Iris Blur and Tilt-Shift. Choose Iris Blur.

2 POSITION PIN

A control pin will be placed at the centre of the image. Drag the pin to position it over the area that you want to keep sharp.

3 BLUR AMOUNT

You can increase or decrease the amount of blur by dragging this dial. Areas outside the ellipse will become softer or sharper.

4 FALL OFF

You can feather the area between the sharp and blurred pixels by dragging any one of these four control points. This enables you to control how gradual or steep the blend is between the focused and blurred pixels.

5 LIGHT BOKEH

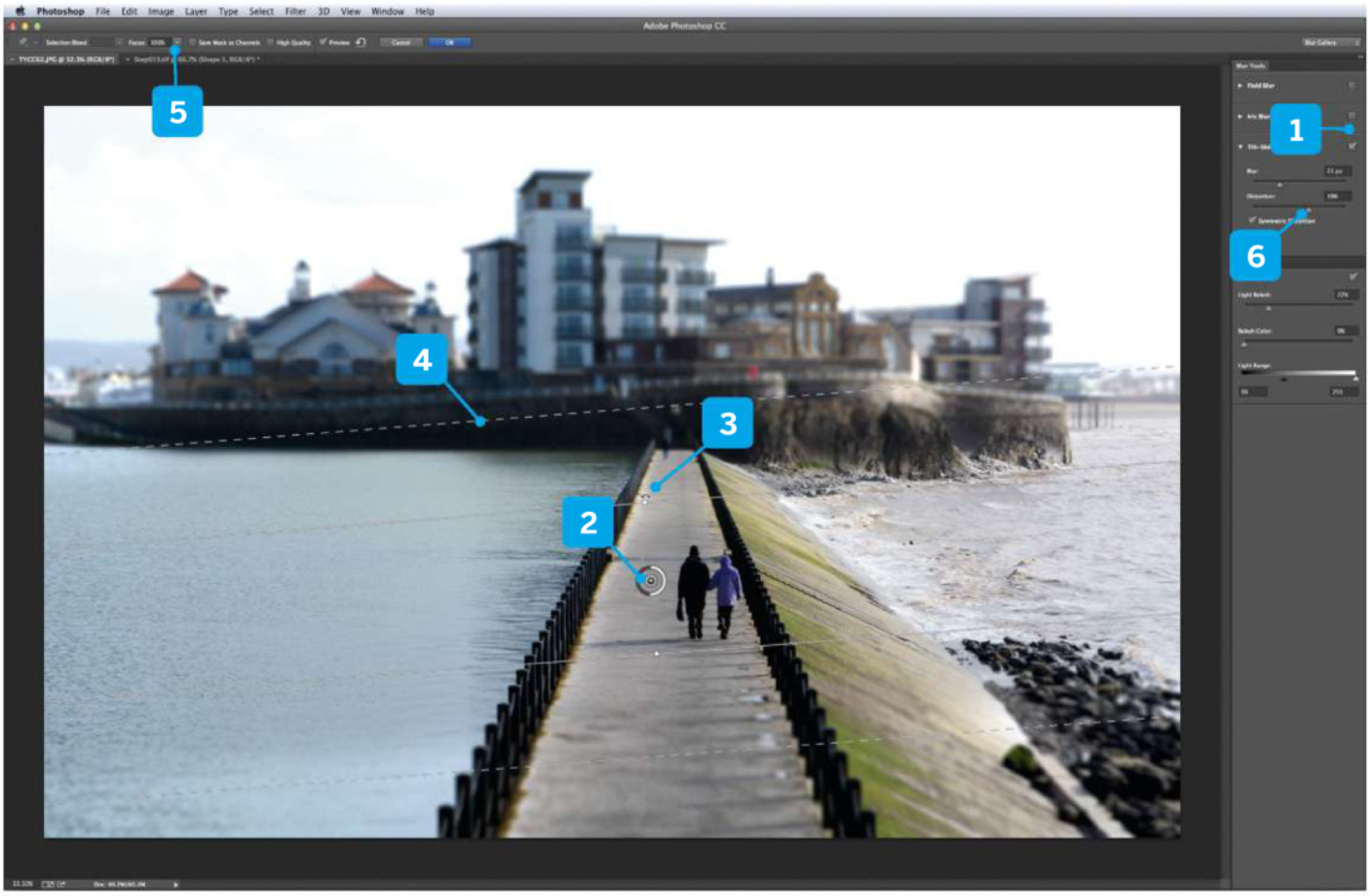
Lens-produced bokeh may feature artefacts such as clipped (or blooming) highlights. Recreate these effects by dragging this slider right. The Light Range slider enables you to shrink or enlarge the range of tones that feature blown-out highlights, such as those on the hand in this image.

6 MORE PINS

Click to place additional Iris Blur pins. This enables you to take more control over the strength and location of the bokeh in any part of the image.

Photoshop Anatomy Tilt-Shift blur filter

Give ordinary snapshots the look of photos of scale models



1 TILT-SHIFT

If you're already working in the Blur Gallery, click here to activate the Tilt-Shift option, and then toggle it open to access the editable properties. Or choose Filter>Blur>Tilt-Shift from the main menu bar.

2 POSITION PIN

As with the Iris Blur, you can drag a pin to fine-tune the position of the sharp and blurred pixels in your filtered image. You can also drag the pin's dial to increase or decrease the Blur amount.

3 ROTATE

You can rotate a real tilt-shift lens to create a diagonal line of focus that suits your subject matter's composition. Recreate this effect by dragging the rotate icon that appears when you rest the cursor near a control point.

4 BLUR BORDER

Drag this dotted line to create a narrower or wider transition between the blurred and focused parts of the image. You can adjust the top and bottom transition lines independently.

5 FOCUS

The centre of any blur filter's ellipse in the Blur Gallery is 100% in focus. You can make the blur effect seep into the sharper areas of the image by reducing the value of this slider.

6 DISTORTION

By dragging this slider to the right you can add lens-related distortion to the blurred foreground area at the bottom of the frame. To distort the top section in the same way, tick the Symmetric Distortion box. ■

GET THE FILES HERE: http://bit.ly/PMZ34



Add creative effects to your photos

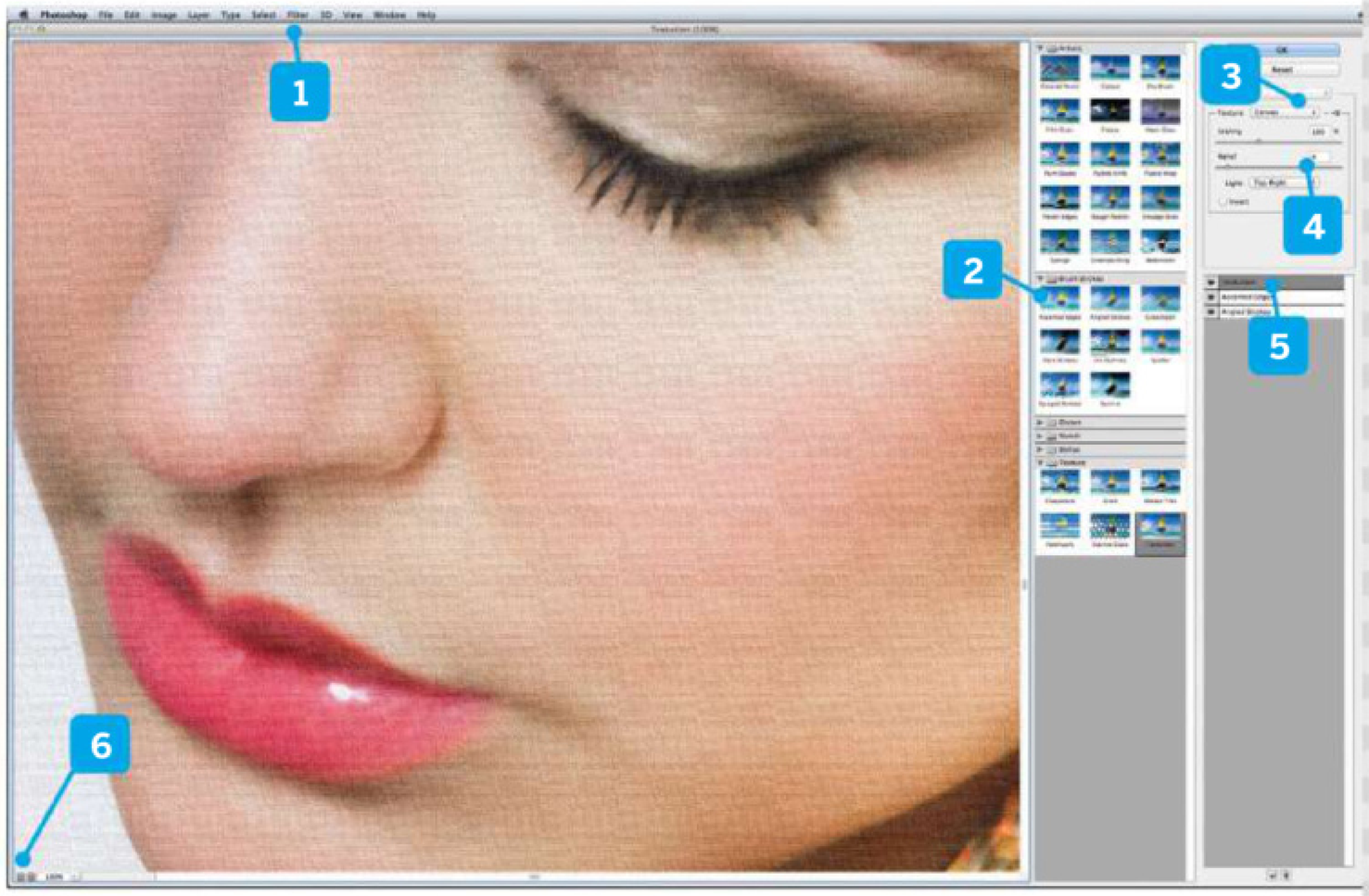
Learn how to apply different artistic filters to your photographs, and modify their properties to produce unique looks

For the majority of this book we've looked at how to use Photoshop to enhance images by correcting problems with colour, exposure, and so on. In this chapter we'll have a bit more fun by applying a host of creative effects to photos. Thanks to Photoshop's filters you can stylise the colours and tones in an image to produce a wide range of creative looks, from pencil sketches to oil paintings. To help you find suitable creative effects, the Filter menu groups filters in folders such as Artistic and Brush Strokes. When choosing any filter, you'll launch the Filter Gallery. This window gives you preview thumbnails of how the filtered image might look, as well as providing editable attributes that will change the results produced by the chosen filter.

This tutorial will introduce you to the key features of the Filter Gallery and showcase the effects they create. Filters can dramatically alter an image's appearance, so it makes sense to use the Convert for Smart Filters command that we looked at in the introduction to this chapter. You can then experiment with different filters and fine-tune their effects more easily.

Photoshop Anatomy The Filter Gallery

Familiarise yourself with the Filter Gallery's key features



1 FILTER MENU

This menu command gives you access to standalone artistic filters such as Oil Paint, as well as enabling you to launch the Filter Gallery and its collection of 47 art effect filters.

2 FOLDERS

You can browse different types of filter by toggling opened themed folders such as Brush Strokes. Here you'll see thumbnails that preview the type of look produced by a particular filter.

3 FILTER LIST

You can replace a currently selected filter with something new by clicking this drop-down menu. You'll then see filters listed alphabetically, from Angled Strokes to Watercolor.

4 EDITABLE ATTRIBUTES

Once you select a filter by clicking its thumbnail, any editable properties such as the Stroke Length of a brush will appear in this section. Altering these is the key to producing more convincing art effects.

5 FILTER LAYERS

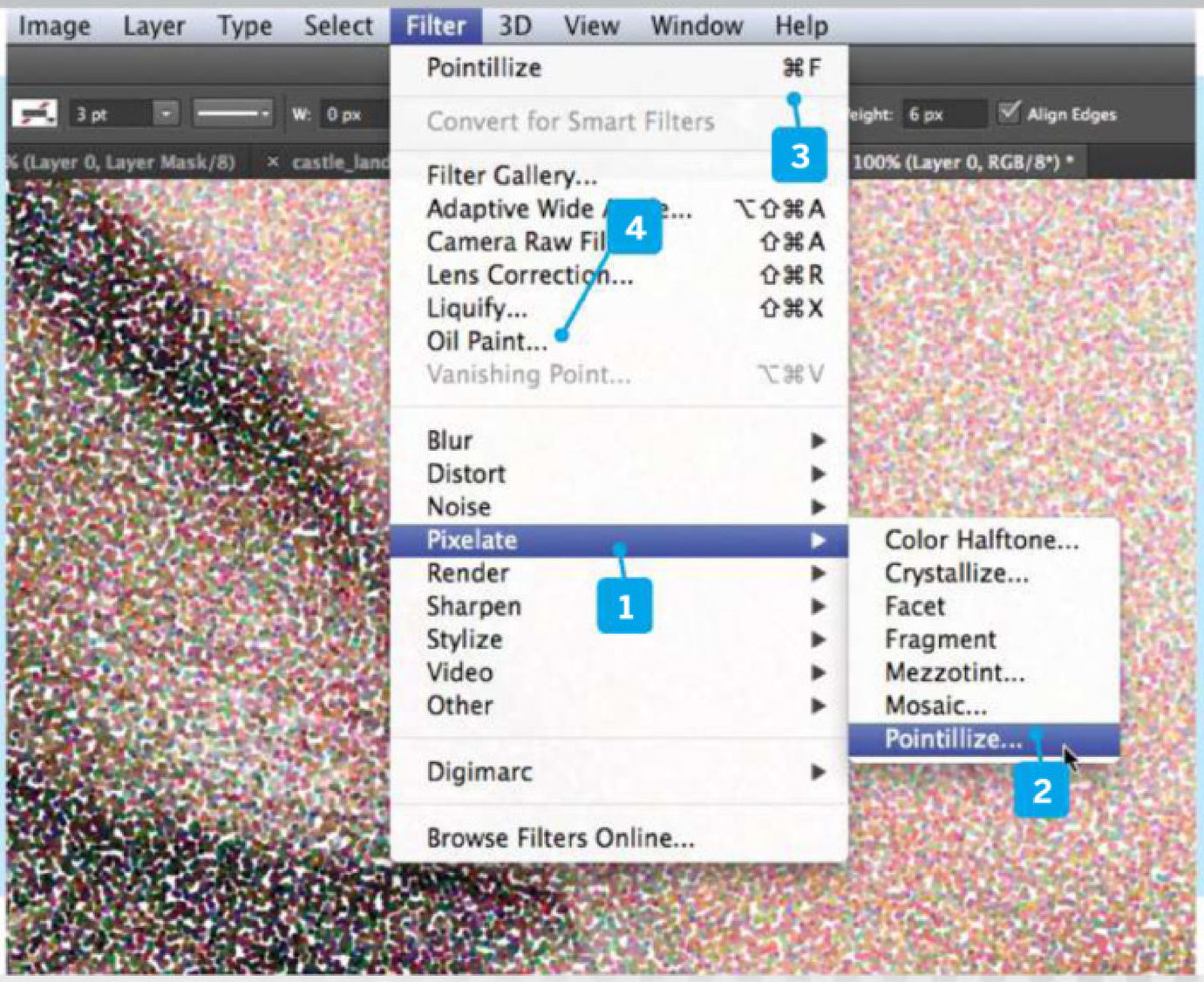
You can create more convincing artistic looks by combining multiple filters. Drag a filter up or down in the layer stack to change the art effect. Click the eye icon to turn it on or off.

6 ZOOM IN

It can be difficult to see the filter effect when looking at the entire image. Click here to zoom in for a closer and clearer look at the filtered image. You can then adjust the sliders more effectively.

Understanding... THE FILTER MENU

As well as enabling you to access the Filter Gallery, the Filter menu also includes additional collections of filters you can use to enhance your photos. For example, the Pixelate **[1]** collection enables you to mimic impressionistic art techniques such as Pointillism **[2]**, which was popularised by Seurat. The most recently applied filter **[3]** can be reapplied by pressing Cmd/Ctrl+F. This keyboard shortcut enables you to build up a filter's look in more manageable increments. The powerful Oil Paint filter **[4]** has more editable attributes than many of the other filters, so it gets a menu command of its own.

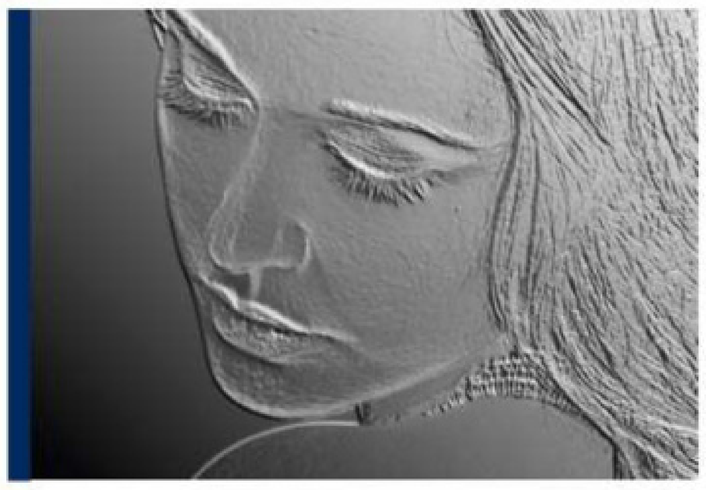




Accented Edges
Adds a light or dark edge around contrasting areas to produce a hand-drawn effect.



Angled Strokes
Use the Direction Balance slider to paint strokes in one direction or produce a cross-hatch effect.



Bas Relief
Create a metallic embossed effect by changing the drop-down menu's Light direction.



Chalk & Charcoal
Adjust the balance between Chalk and Charcoal to create a scratchy mixed-media effect.



Charcoal
Vary stroke thickness and use light and dark balance sliders to create a charcoal effect.



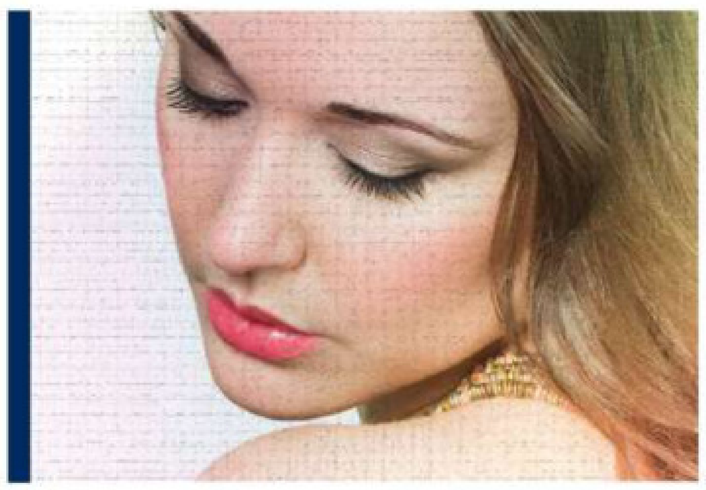
Chrome
Produce etched tin-foil style effects with this simple two-slider filter.



Colored Pencil
Bash out a hand-drawn pencil sketch in a few seconds with this filter.



Conte Crayon
This more complex filter enables you to add textured paper effects to the mix.



Craquelure
Adds eroded canvas artefacts to enhance your filtered photo paintings.



Crosshatch
Creates overlapping diagonal strokes of varying lengths, sharpness and intensity.



Cutout
Recreates the stencilled look produced by the screen-printing process.



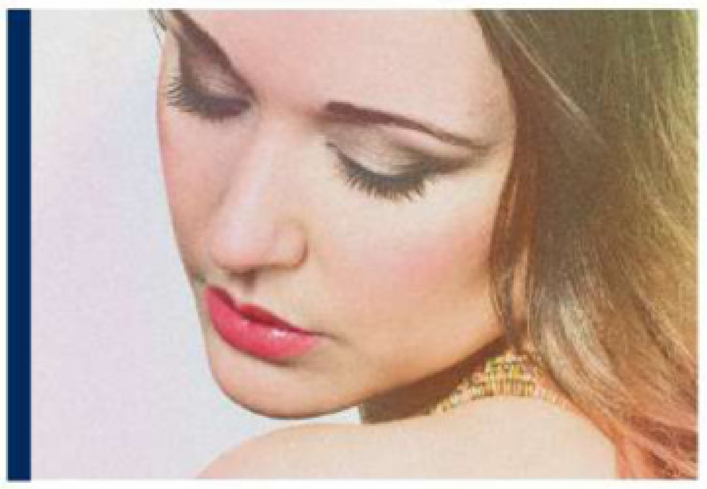
Dark Strokes
Create clipped and stylised dark shadows with this moody and striking filter.



Diffuse Glow
This portrait-enhancing filter flatters complexion and creates a high-key look.



Dry Brush
Quickly add scratchy paint strokes that echo a traditional painting technique.



Film Grain
Use this filter's sliders to add grain to shadows, highlights or a mix of both.



Fresco
Mimics the effect of painting directly onto a textured wall with editable properties.



Glass
This fun filter enables you to distort your image through a range of glassy surfaces.



Glowing Edges
This filter adds a glow similar to that produced by a neon light to contrasting features.



Grain
Add different grain types to your images, such as horizontal, clumped or contrasty.



Graphic Pen
Creates contrasting areas by adding pen strokes that are densely clustered or wide apart.



Halftone Pattern
Mimics the pop-art look produced by the comic and newspaper printing process.



Ink Outlines
Outlines contrasting forms using three sliders to change the stroke length.



Mosaic Tiles
Builds up a version of your image by overlaying a collection of resizeable interlocking tiles.



Neon Glow
Provides a colour picker so you can add specific glow colours to a photo.



Note Paper
This filter adds raised edges and grain to a greyscale version of the source image.



Ocean Ripple
Like its Glass filter cousin, this distorting filter breaks up the image using patterns.



Paint Daubs
Creates a hand-painted effect. Works well in conjunction with other filters.



Palette Knife
Mimics the effect of applying rough smears of paint with a knife instead of a brush.



Patchwork
Creates the illusion that the image is built up of thousands of raised square tiles.



Photocopy
Mimics the effects created by copying a colour image using a mono photocopier.



Plaster
Sliders enable you to make the key details in the image rise up above a smooth surface.



Plastic Wrap
This bizarre filter adds specular highlights to the image to mimic plastic wrap.



Poster Edges
Creates a posterised look by simplifying the palette. A popular look in the 1990s.



Reticulation
Converts your image to a high-contrast monochrome, and adds grain.



Rough Pastels
Gives an image the look of a pastel drawing, with many editable attributes.



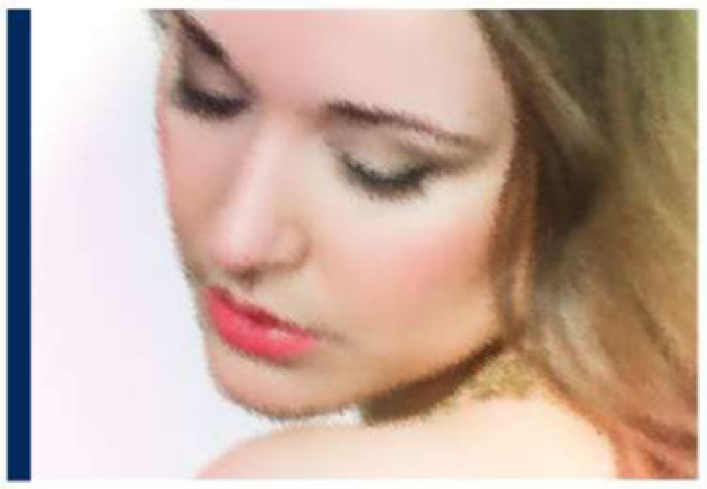
Smudge Stick
Makes a simpler and perhaps less successful pastel effect than Rough Pastels.



Spatter
This converts the pixels of an image into airbrush-style specks of paint.



Sponge
This one simplifies an image and overlays an editable texture onto it.



Sprayed Strokes
Creates a very rough 'painted' rendition of an image. Probably one to avoid.



Stained Glass
This filter might be more useful for mimicking a mosaic rather than stained glass.



Stamp
Produces an effective monochromatic lithograph-style print by tweaking two sliders.



Sumi-e
Produces a simplified and stylised look similar to the one made by the Dark Strokes filter.



Texturizer
Combine this useful filter with a host of others to add a canvas-style texture.



Torn Edges
Another way to create a simplified high-contrast black-and-white version of the source image.



Underpainting
Creates a painterly image with added texture, with controls similar to the Texturizer filter.



Waterpaper
Weaves a paper fibre texture into a filtered image's simplified colours and tones.



Watercolor
A popular filter that reproduces the watercolour effect. Best used alongside other filters.



Oil Paint
Creates a very convincing oil-paint effect. Not part of the Filter Gallery.■

GET THE FILES HERE: http://bit.ly/PMZ34

Sharpen up your images

Discover how to make your images appear crisp and sharp, even those blighted by camera-shake blur

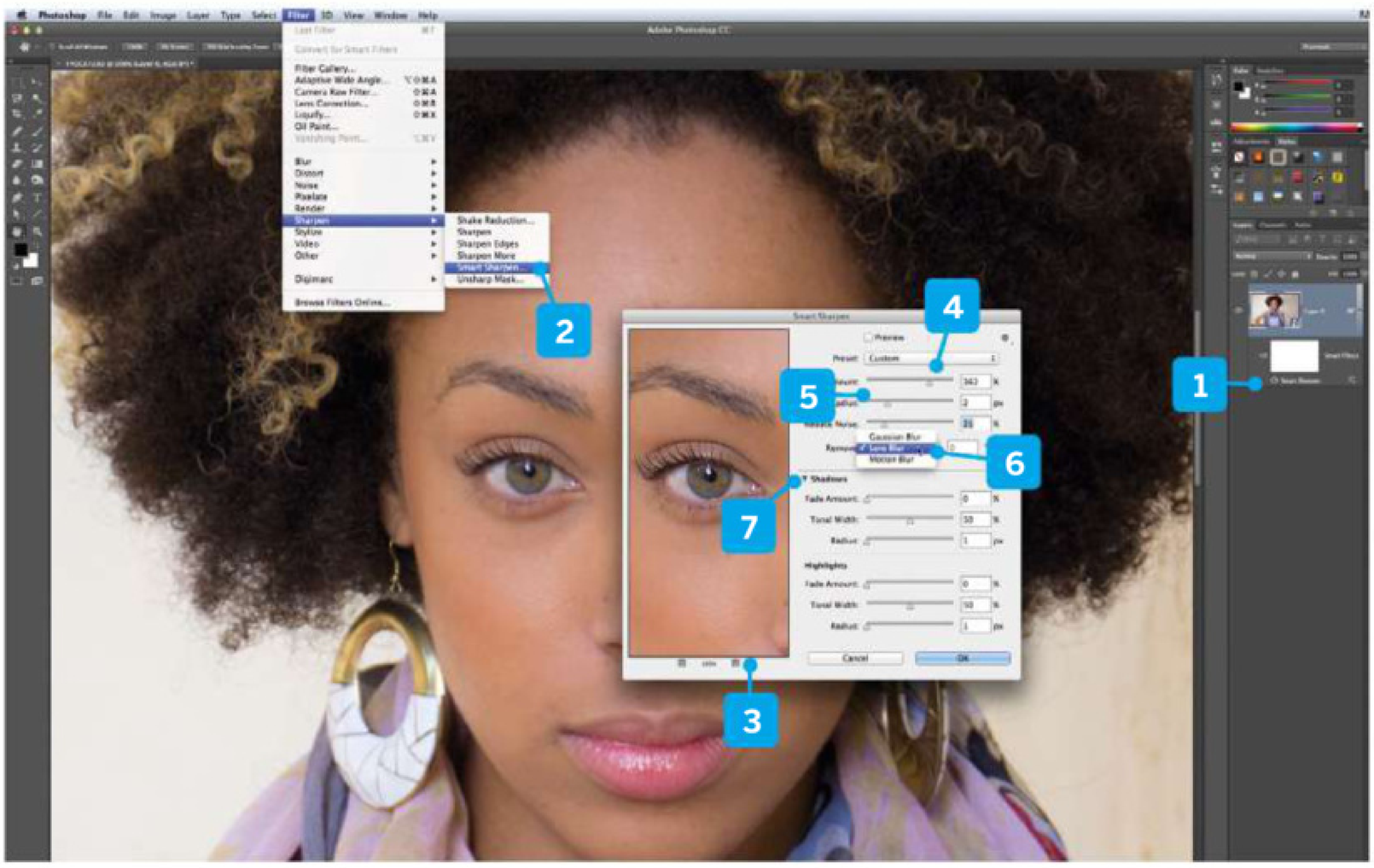
It can be a challenge to get your images looking sharp. Many digital cameras have a built-in filter that blurs the image in an attempt to avoid producing moiré patterns. This low-pass (or anti-aliasing) filter can also soften important details and create a photo that lacks impact. What looks sharp on the camera's LCD screen may turn out to be soft. A slow shutter speed may also induce blur, which is more difficult to fix.

Photoshop has sharpening tools that are designed to tease out detail in a soft-looking shot. This post-production sharpening works by increasing the contrast around the edges of details in the image, giving them more impact. However, when you sharpen an image using filters you risk exaggerating picture noise in smooth areas, such as in the background of our starting image. You can also introduce artefacts such as blown-out highlights.

In our first annotation we'll point out the key techniques involved in using the Smart Sharpen filter to reveal fine details in a soft photo. We'll then demonstrate how the Shake Reduction command can counteract motion blur caused by camera shake.

Overview The Smart Sharpen filter

Give details more impact and keep sharpening artefacts at bay



1 GET SMART

You can sharpen an image in a non-destructive way by turning the image layer into a Smart Object. You can then toggle the filter on and off.

2 SMART SHARPEN

Photoshop has many sharpening tools. The most versatile can be summoned by choosing Filter> Sharpen>Smart Sharpen.

3 GIVE IT 100%

To assess how soft or sharp an image really is, you need to look at it at 100%. By default the Smart Sharpen preview window will zoom in to this value.

4 AMOUNT

This slider increases the strength of the contrast adjustment around the edges of details in the image. This contrast boost gives fine areas, such as the eyelashes in this image, more impact and makes them look sharper.

5 RADIUS

This slider increases the spread of the Amount contrast change. A larger Radius value creates thicker darker and lighter lines that can turn into distracting halo artefacts. As a rule, stick to a maximum Radius of 2.

6 REMOVE

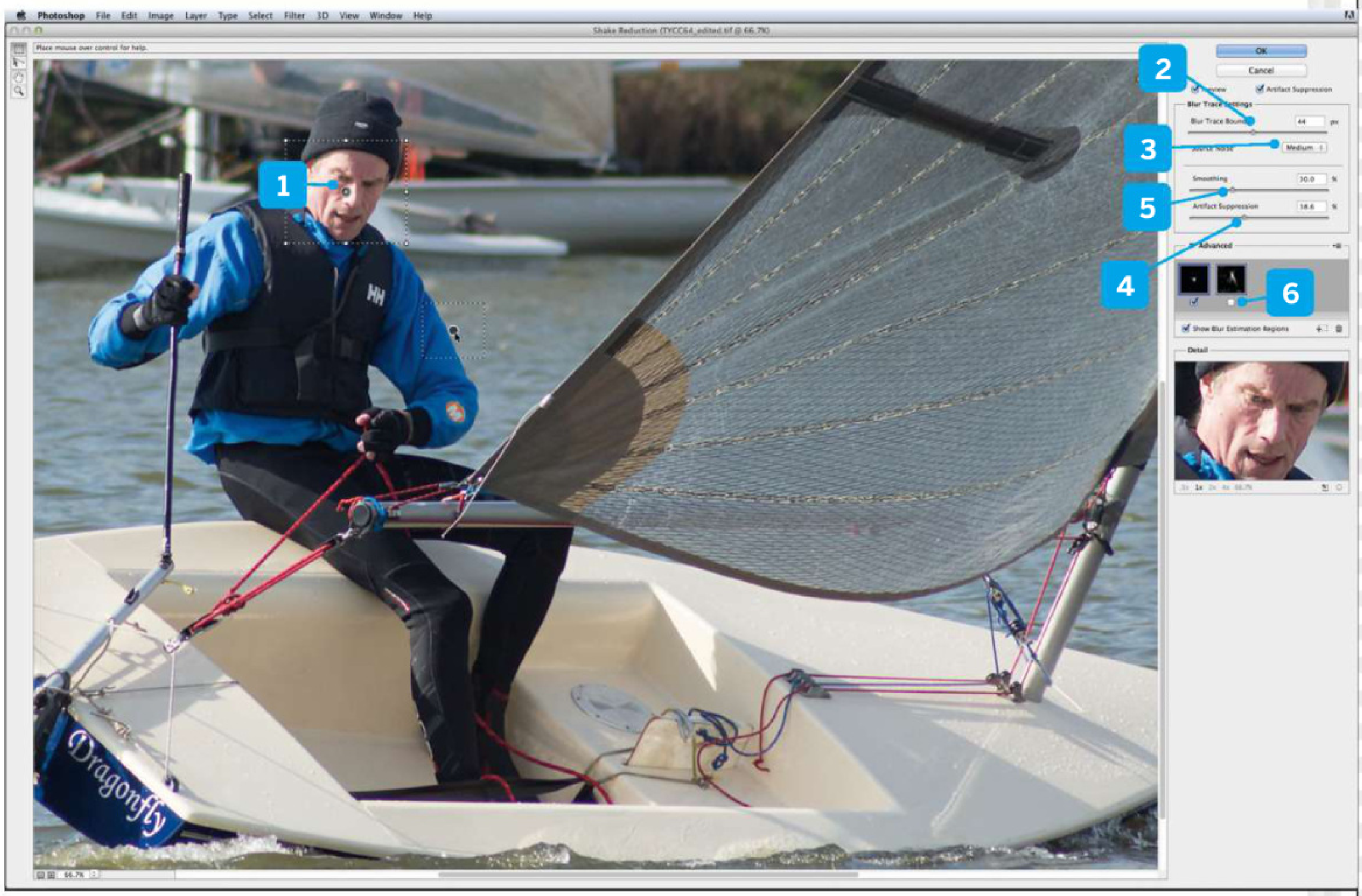
The most effective sharpening option in this menu is Lens Blur. The Motion Blur slider is designed to counteract camera-shake blur, but it's never been very effective. Check out the new Shake Reduction filter, opposite, however.

7 SHADOWS

Toggle open this option to selectively limit the sharpening to the shadows or highlights. This enables you to target the areas that need sharpening.

Photoshop Anatomy Shake Reduction filter

Counteract the length and direction of shake-induced motion blur



1 BLUR TRACE MARQUEE

Click the pin at the centre of the default blur trace marquee and drag it to the area that needs to look sharp. The Shake Reduction filter will then analyse the selected area to determine the length and direction of motion-blurred pixels.

2 BLUR TRACE BOUNDS

After launching the filter, Photoshop attempts to work out how long and wide the steaks of motion blur are in pixels. If you spot haloes around contrasting edges, try reducing the amount.

3 SOURCE NOISE

If your photo was captured using a high ISO such as 800 or higher, then you can set this drop-down menu to High to stop noise artefacts from being exaggerated by the shake-reduction process.

4 ARTEFACT SUPPRESSION

The shake-reduction process can add ugly artefacts such as noise, haloes and repeating edges (ghosting), especially if multiple blur trace bounds are used. This slider will reduce those artefacts.

5 SMOOTHING

This slider enables you to get a balance between smoothing out sharpening-induced noise in clear areas such as skin, while preserving details in contrasting edges.

6 ADVANCED OPTIONS

Our two Blur Trace marquees help Photoshop understand motion blur in different sections of the image. Each white blur trace icon shows the length and direction of a particular Blur Trace marquee's blur. ■


Photoshop File Edit Image Layer Type Select Filter 3D View Window Help
Adobe Photoshop CC
Reduce Noise
OK
Cancel
Preview
Basic
Advanced
Settings: Default
Per Channel
Channel: Blue
Strength: 3
Preserve Details: 0 %



Common photo fixes

There are some image adjustments you'll make to almost every photo. Discover what they are and how to apply them

110 Improve the colours in your photos
Discover how to use a Levels adjustment to improve the colour balance of a photo with just a few clicks

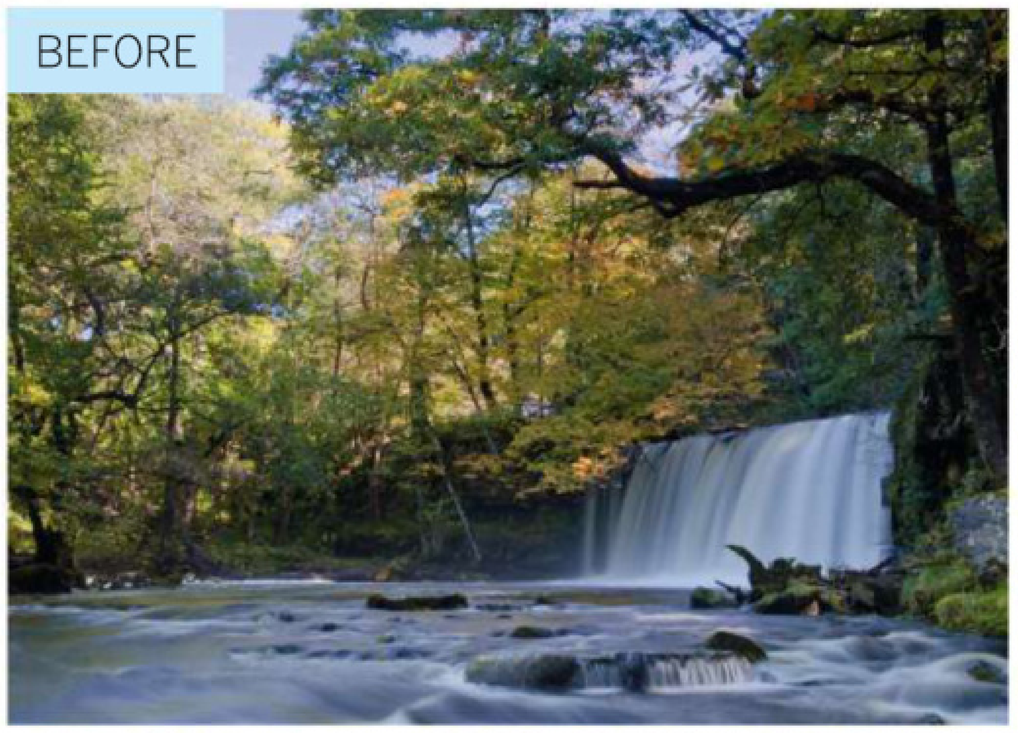
112 Double process a raw file to improve exposure
Process a high-contrast raw file twice and then blend the correctly exposed areas in a composite image

116 Create and apply Photoshop Actions
Record adjustments you frequently make to your photos, then quickly apply them to other images with one click

118 Keep the (high ISO) noise down!
Smooth out undesirable image noise while preserving detail throughout the photo using the Reduce Noise filter

120 Enhance your close-up portrait images
Fix exposure errors, improve colours, and smooth out unwanted detail in your portraits with our retouching guide

GET THE FILES HERE: http://bit.ly/PMZ34





Improve the colours in your photographs

Discover how to use a Levels adjustment to improve the colour balance of a photo that has an incorrect white balance with just a few clicks

The human eye is able to adapt to changing lighting conditions, so we can discern a subject's true colours in almost any lighting. Unlike us, digital cameras don't have the power of interpretation – they simply record what's there. Daylight has a cold blue tint, and artificial indoor lighting has a warm orange tint. To prevent the resulting colours in a scene from being tinted too warm or cold, the camera's automatic white balance feature will attempt to find white or grey objects in the scene. If whites are tinted blue then it will warm up the image to make the whites look white. This creates tint-free colours in the rest of the shot. If whites suffer an orange tint then the camera will attempt to cool down the colours to produce tint-free whites. Again, this creates tint-free colours in the rest of the frame. You could give your camera a helping hand by manually setting the white balance, but this can be tricky.

Often, the camera fails to create balanced tint-free colours, and you end up with an image that looks a little too warm or cold. Our starting image has mixed lighting, so the brighter sun-lit areas have accurate colours, but the shaded sections look too cool and blue. Photoshop's Levels command enables you to correct these colours with a few clicks.

Photoshop Anatomy The Levels command

Use the eyedroppers in the Levels command to remove a colour cast

1 LEVELS ADJUSTMENT

After opening our TYCC16.jpg starting image, click here to add a Levels adjustment layer to the document. This will enable you to remove the cold blue colour cast in the flowing water and increase the contrast of the image at the same time.

2 EYEDROPPERS

The grey point eyedropper enables you to sample an area that should be white or neutral grey. It will then warm up or cool down the sampled colours to remove any tints. The white eyedropper does a similar job, but it will often blow out highlights.

3 SAMPLED AREA

In this example, click here to sample the blue tinted whites of the shaded waterfall. The Levels adjustment layer instantly warms up the cold whites to make them look white, creating more accurate-looking colours in the rest of the shaded area.

4 LAYER MASK

Grab the Gradient tool. Set the foreground colour to grey and the background to white. Draw a grey-to-white gradient. The grey section reduces the strength of the colour adjustment in the warmer top section of the frame. The white section enables a stronger adjustment in the cold shaded areas.



5 LIGHTEN THE MIDTONES

The shaded waterfall is a little under-exposed, so after correcting the colours, drag the grey midtone slider to the left to lighten the midtones and reveal more detail.

6 VIBRANCE

After correcting the colours, add a Vibrance adjustment layer. Boost the Vibrance slider to +19. This boosts the saturation of the natural colours.

Understanding... RAW WHITE BALANCE

You can use Filter> Camera Raw Filter to take the JPEG starting image into Camera Raw. By clicking here **[1]** you can set the White Balance to Auto in an attempt to counteract the cold colour cast. Alternatively, you can manually drag this slider **[2]** to warm up or cool down the image. You can remove magenta or green tints using this slider **[3]**. In Camera Raw's toolbar you'll find a handy White Balance eyedropper tool. As with the Levels command, simply click the eyedropper to simultaneously sample and correct an area that should be white or grey **[4]**.

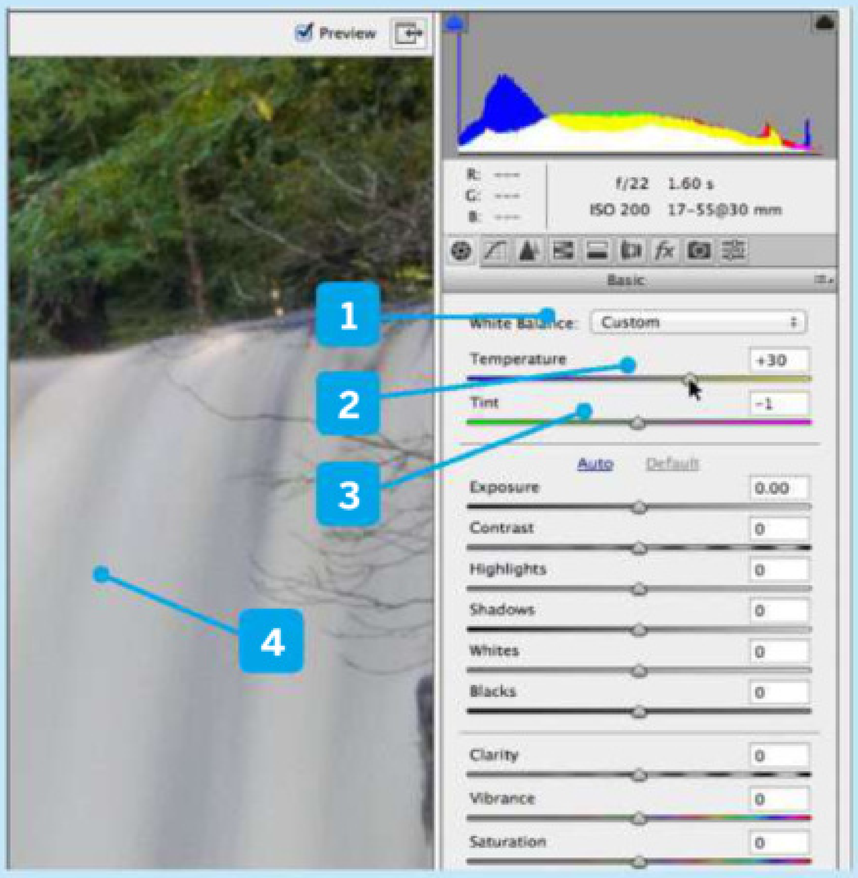


PHOTO FILTER EFFECTS

Photographers can manually warm up or cool down the colours in an image by placing a coloured filter over the lens before they take the photograph. You can reproduce these filters digitally, courtesy of Photoshop's Photo Filter adjustment layer. Colour-correcting filters such as Warming Filter (85) can help you remove a cold blue colour cast, as we'll demonstrate on the last pages of this chapter. You can cool down a warm orange artificial light source using Cooling Filter (80). Photo Filter also has some creative tinting filters such as Sepia, to add a romantic warm tint to your images, although this can make them look a little tacky, so it should be used sparingly.

GET THE FILES HERE: http://bit.ly/PMZ34

Double process a raw file

Process a high-contrast raw file twice and then blend it together

As we demonstrated in chapter 2, raw files are packed with lots of information about the colours and tones in the image, so you can claw back missing details without adding undesirable artefacts. Selective adjustment tools such as the Graduated Filter enable you to lighten or darken problematic areas without changing correctly exposed ones. However, sometimes the composition of the image will make it a challenge to perform selective adjustments solely within Camera Raw.

Take our starting image, for example. The bright sky is contrasting dramatically with the back-lit horse, so the camera has struggled to meter for a correct overall exposure. Indeed, the sky is over-exposed and the horse is under-exposed, so detail is missing in the shadows, midtones and highlights. You could try to use the tonal sliders in the Basic panel to selectively lighten or darken tonal ranges, but this might not reveal all the detail that you need. You could try using the Graduated Filter to selectively darken the sky, but the horse overlaps much of the sky so you'll end up darkening the animal too.

In this tutorial we'll show you how to process the raw file twice – once to reveal the shadow detail on the ground, and again to create a version that restores the missing highlights in the sky. You'll then take the two versions into the standard Photoshop editor where you can use extra tools such as layers, brush tips and layer masks to blend the best bits from both versions together in an effective and correctly exposed composite.



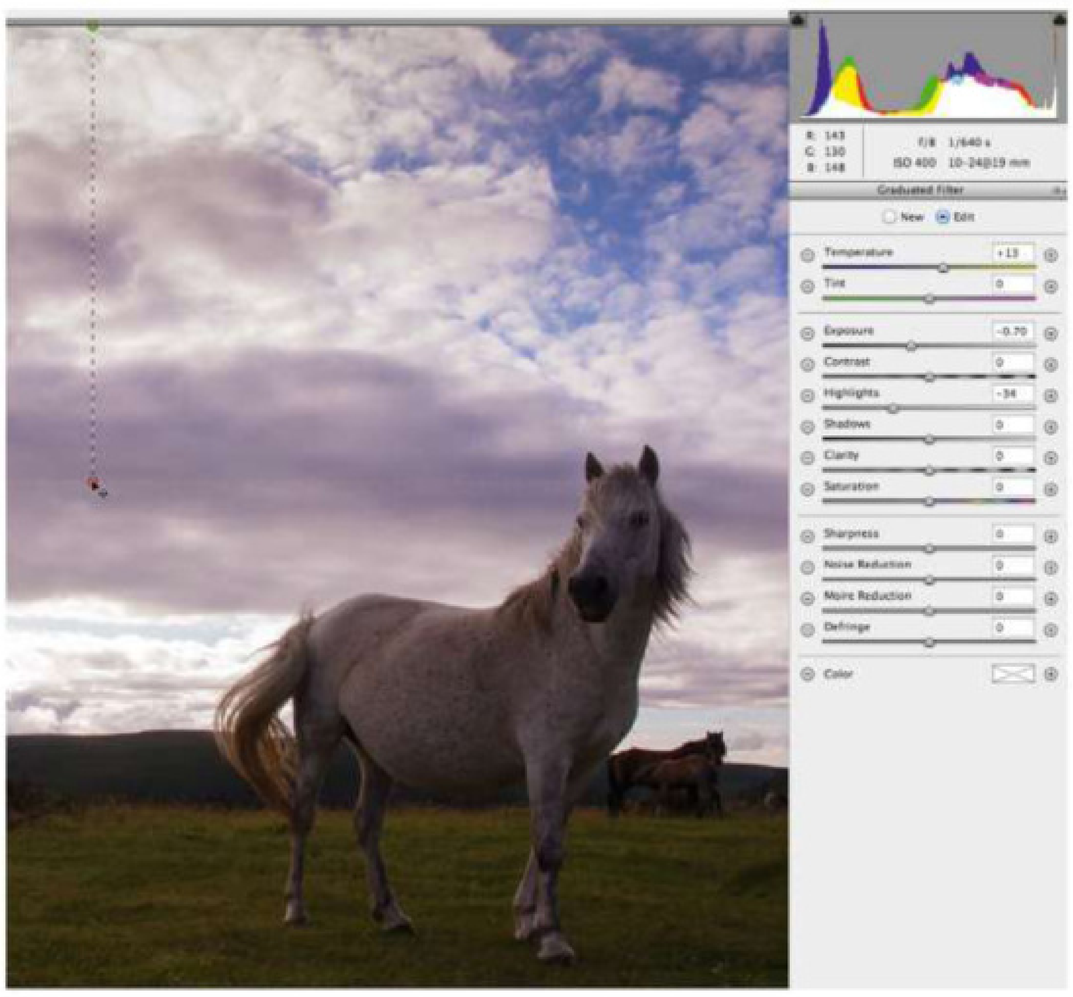






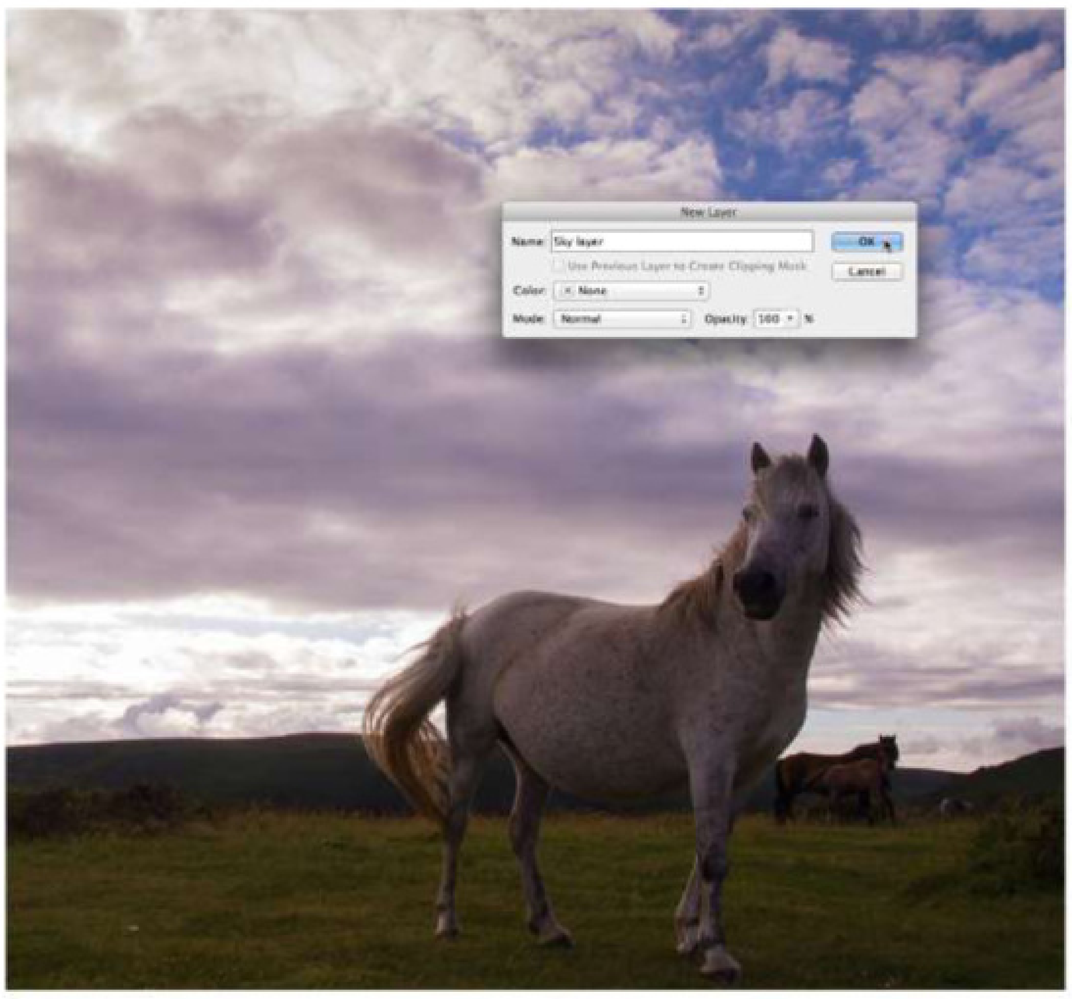
1 Open the image

Go to File›Open and browse to TYCC45.dng. Click Open. This is a digital negative file so it will automatically open in Camera Raw. We'll create a version of the photo with a correctly exposed sky first. Press O to turn on the highlight clipping warnings. Red patches indicate where some of the brightest highlights are blown-out and lack detail. The colour in the sky is also rather drab, so we'll need to fix this too.



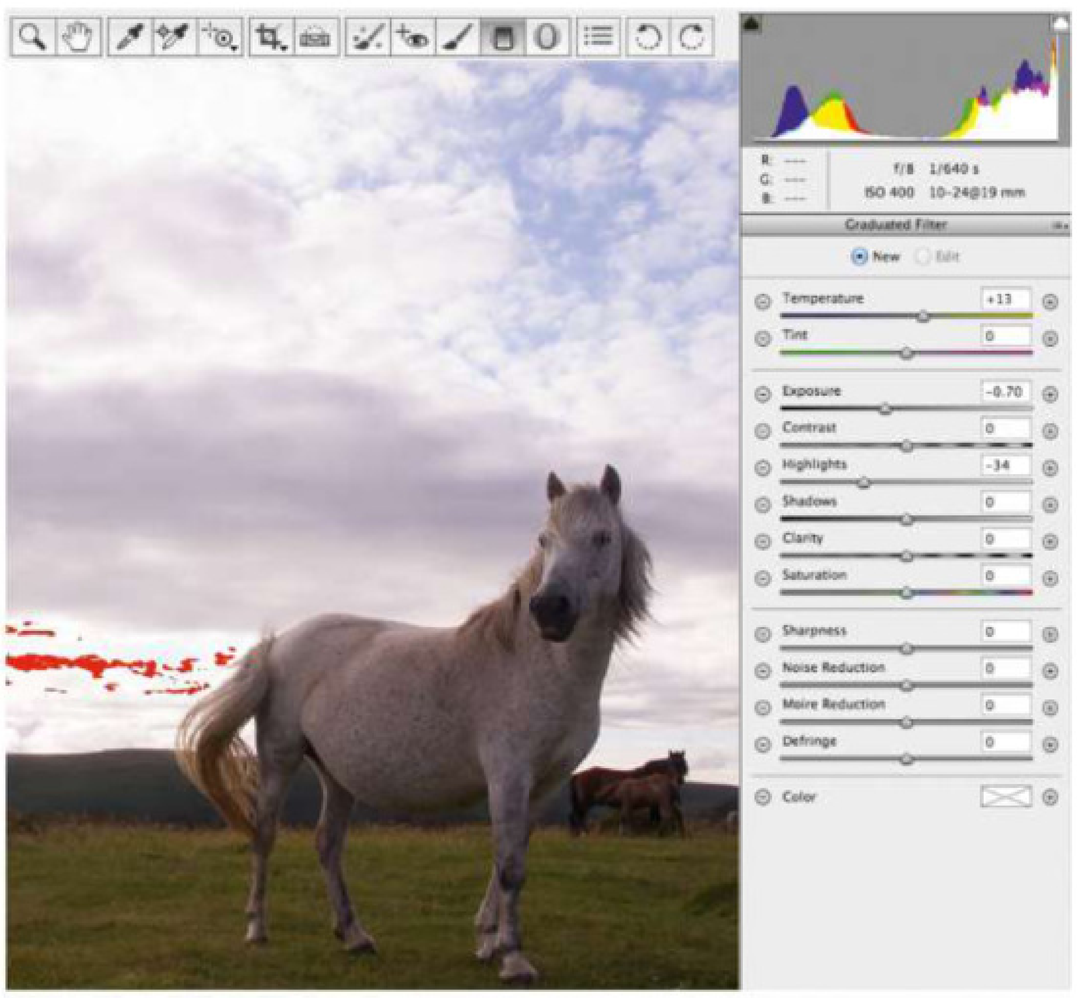
2 Restore the detail in the sky

Drag Exposure down to −0.65. Claw back missing highlight detail by sliding Highlights to −41. Remove the remaining clipping warning patches by taking Whites down to −22. Reveal more fine detail in the clouds by increasing Clarity to +11. Boost the sky colour by increasing Vibrance to +42. Use the Graduated Filter to draw a gradient from the top of the frame to the horse's ears. Set Exposure to −70 and Highlights to −34.



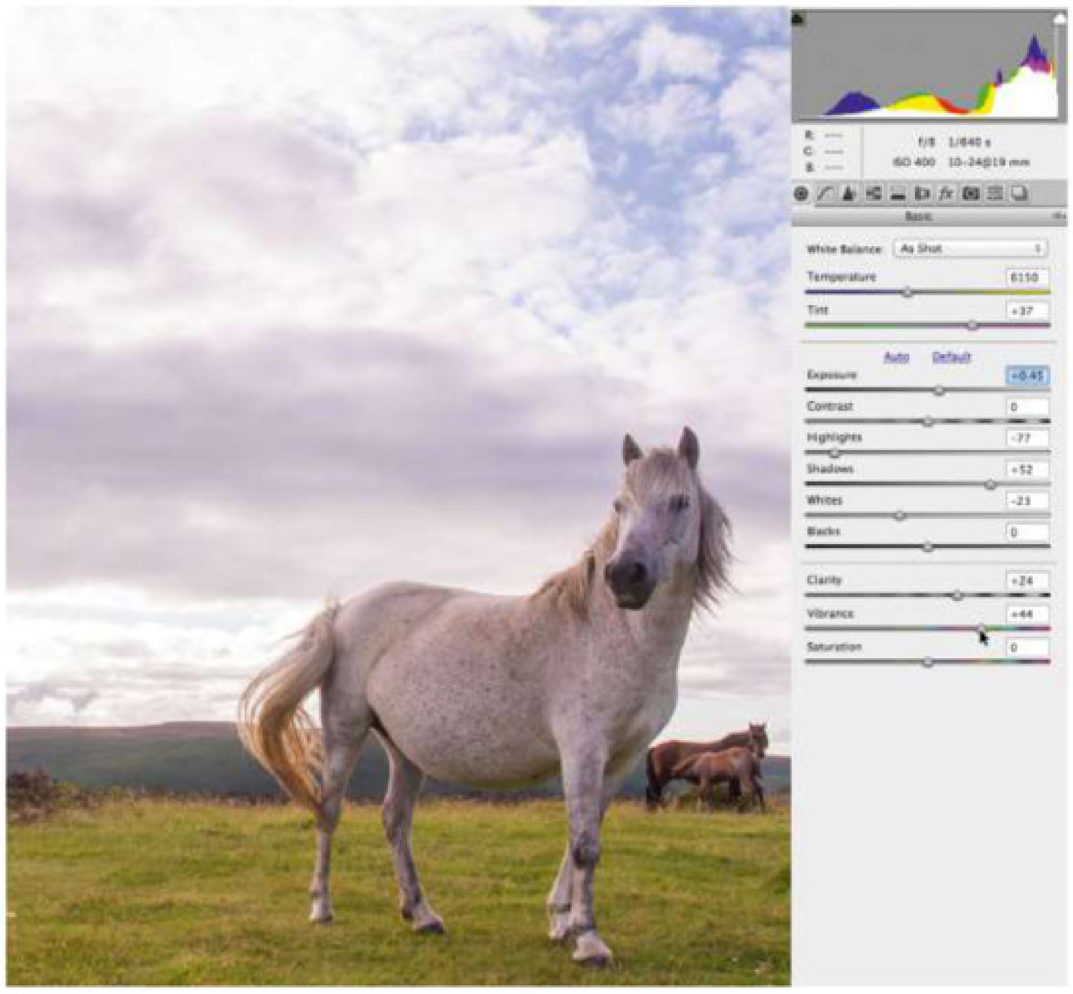
3 Label the layer

Now that you've improved the exposure of the sky part of the photo, click Open Image. This takes the processed picture into the standard Photoshop editor. Go to File›Save As. Label the processed picture 'composite' and set the Format to Photoshop to create a layered PSD file. Click Save. In the Layers panel, double click the locked Background layer's thumbnail to unlock it. Label the layer 'Sky layer'. Click OK.



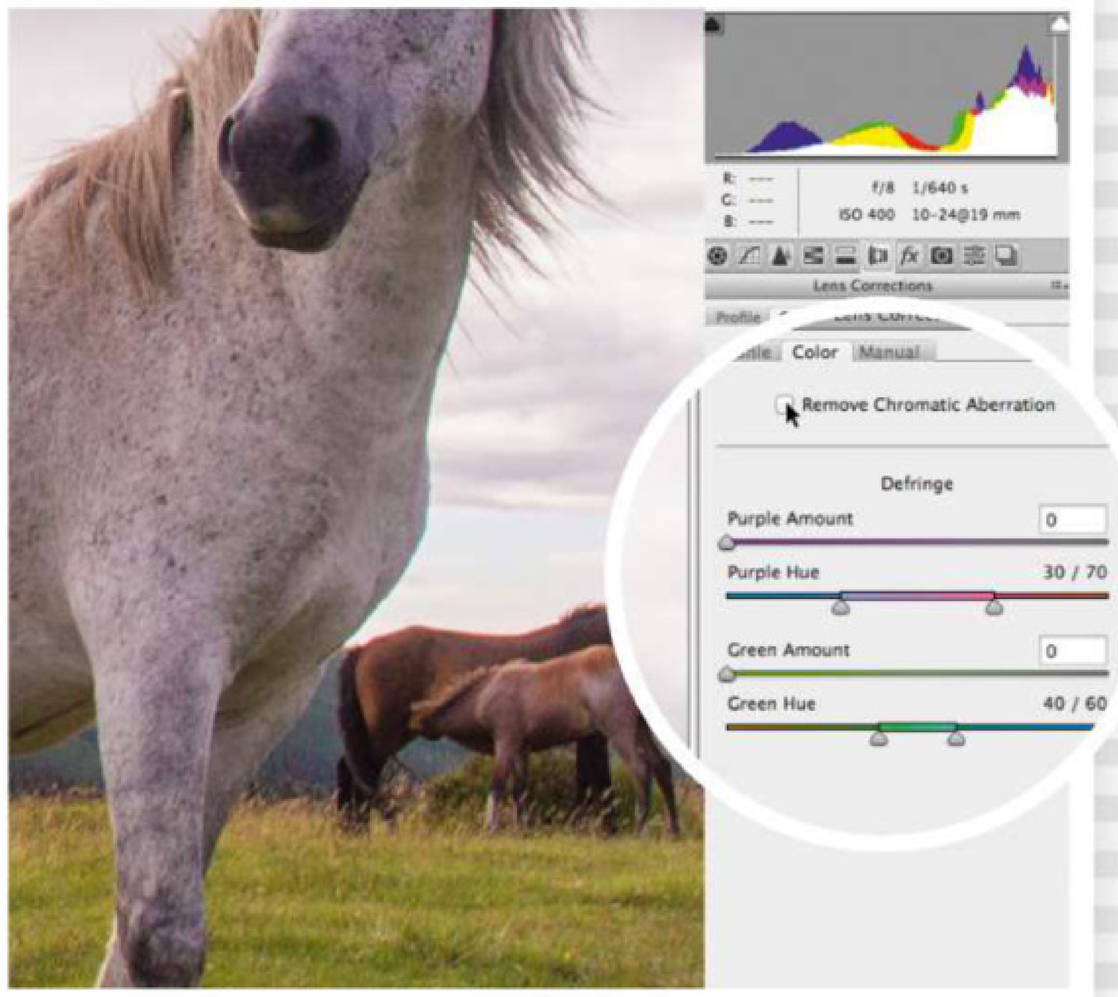
4 Reset the raw file

Go to File›Open Recent. Browse to TYCC45.dng again and open it. The raw file will remember the changes you made to the sky, but now we want to create a version that improves the horse, so we need to undo the changes we made earlier. Click Default to restore most of the slider settings to 0. Drag Clarity and Vibrance to 0. Click the Graduated Filter icon and then click Clear All. This resets the image to its original look.



5 Expose for the horse

Go back to the Basic panel and click the Zoom tool. To see more detail in both the horse and the ground, drag Exposure to +0.45. Boost Shadows to +52. Drag Highlights down to −77. Drop Whites to −23. To tease out more texture on the horse, push Clarity up to +24. Create more attractive-looking grass by pushing Vibrance to +44. Don't worry about the sky looking washed out. The first processing pass will fix the sky later.



6 Remove chromatic aberration

Now that you've brightened up the horse, you'll have revealed some colour fringing around the contrasting edges. Use the Zoom tool to magnify the image to 100% and drag with the Hand tool to see the undesirable green fringe on the right of the horse. A magenta fringe runs along the top of the rear of the horse. Click the Lens Corrections panel, then click the Color tab. Click the Remove Chromatic Aberration box.



7 Add a mask

Click Open Image. Choose Select›All and then Edit›Copy. Click the composite.psd tab and choose Edit›Paste. You now have two layers — one exposing for the horse and one for the sky. Click the horse layer and choose Layer›Layer Mask›Reveal All. A white mask appears. Click the Gradient tool. Press D to set the foreground and background colours to white and black. Click the Linear gradient option. Tick Reverse.



8 Combine the layers

Click the top left of the frame and draw a diagonal gradient down towards where the sky meets the ground. Thanks to the mask, you can now see the lighter horse from the top layer and the darker sky from the layer below. The mask's angled black-to-white gradient stops the darker sky from overlapping the lighter horse. Choose File›Save to save the combined exposures as a layered PSD file. ■

GET THE FILES HERE: http://bit.ly/PMZ34

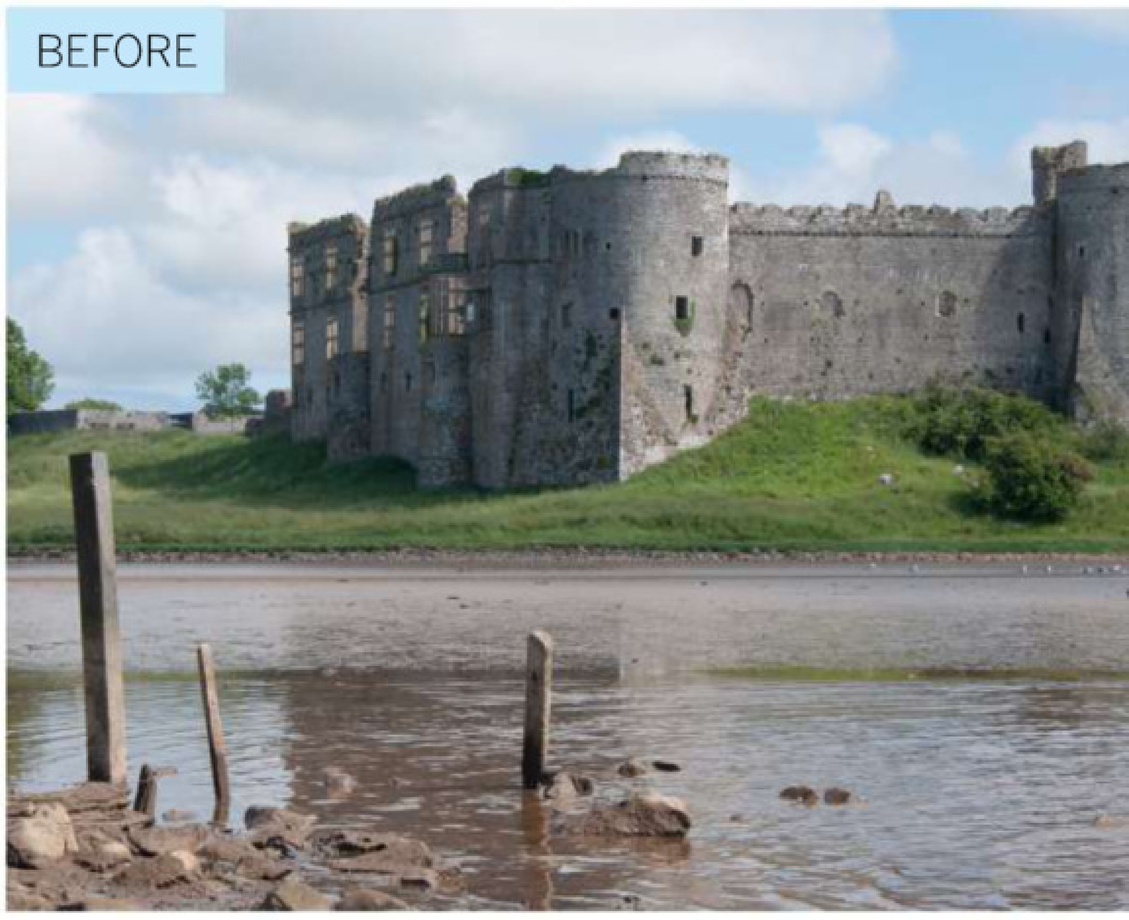
Create and apply Actions

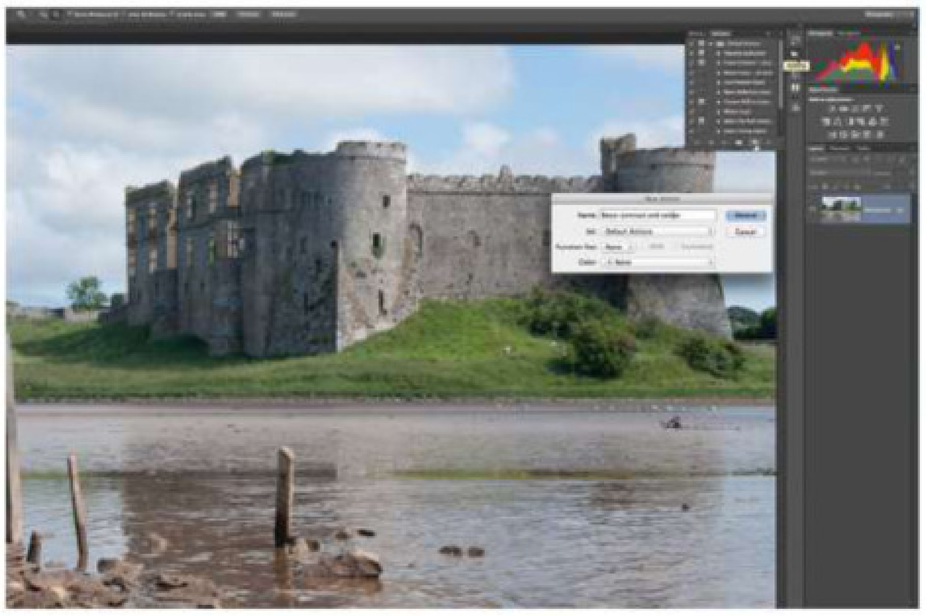
Record adjustments you frequently make to your photos, then quickly apply them to other images with one click

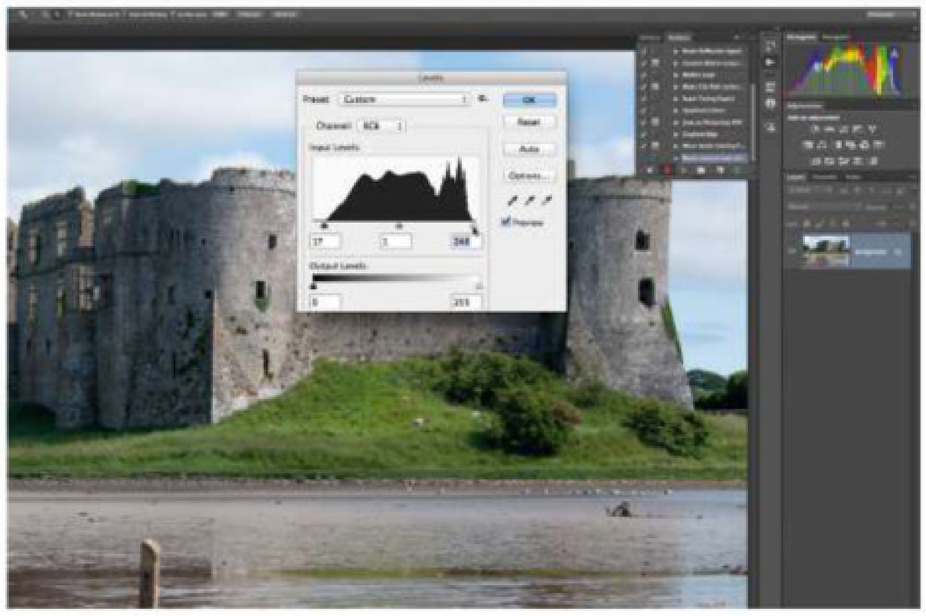
Many of the problems you'll encounter as a photographer will be exposure- or colour-related. Some images will lack contrast, some will be desaturated, and so on. Photoshop attempts to provide you with quick ways to tweak colour and tone thanks to its Auto Tone, Auto Contrast and Auto Color menu options. However, while these automated commands can give a washed-out image stronger contrasting shadows and highlights, they are also likely to introduce unwanted colour casts that can make a warm image look too cool, for example. Actions enable you to automate your common photo fixes more effectively.

While performing a series of photo-fixing operations such as adjusting contrast or boosting colour strength, Photoshop can record each step in the editing process as an Action. You can then open a new image and use the pre-recorded Action to edit the image using the same colour and tone-tweaking settings.

In the following tutorial we'll show you how to create an action that records some basic photo-fixing techniques. Although you need to click a record button to capture your image adjustments as an Action, you don't need to feel under any time pressure. The Action only records the adjustments you make, not the pauses between them.







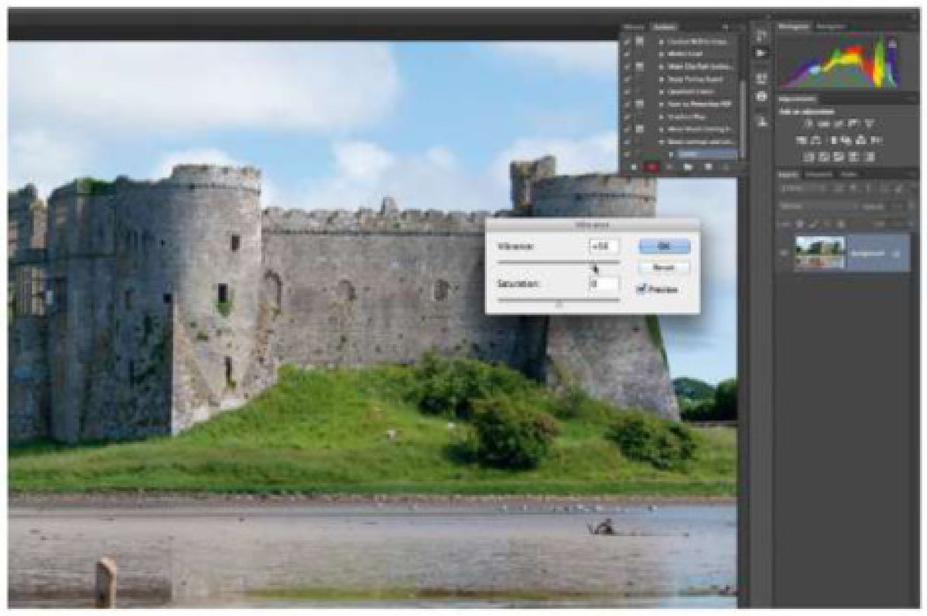
1 Create a new Action

Open TYCC65.jpg. The image is a little drab and lacks contrast. Go to Window›Workspace›Photography. This will reveal the Actions panel icon. Click to expand it. Click the Create new action icon. In the New Action panel, Name the action 'Boost contrast and colour'.

2 Boost the contrast

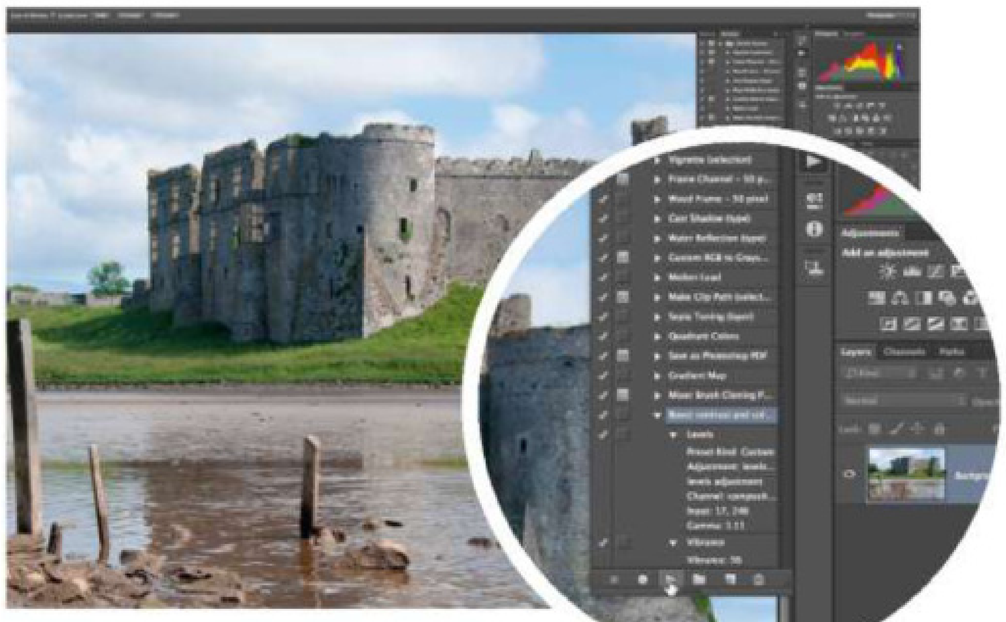
You can assign a function key to trigger the action. Click Record. Go to Image›Adjustments›Levels. Drag the black input level slider to 17 to darken the shadows. Drag the white highlight input level slider left to 246 to lighten the highlights.





3 Adjust the Vibrance

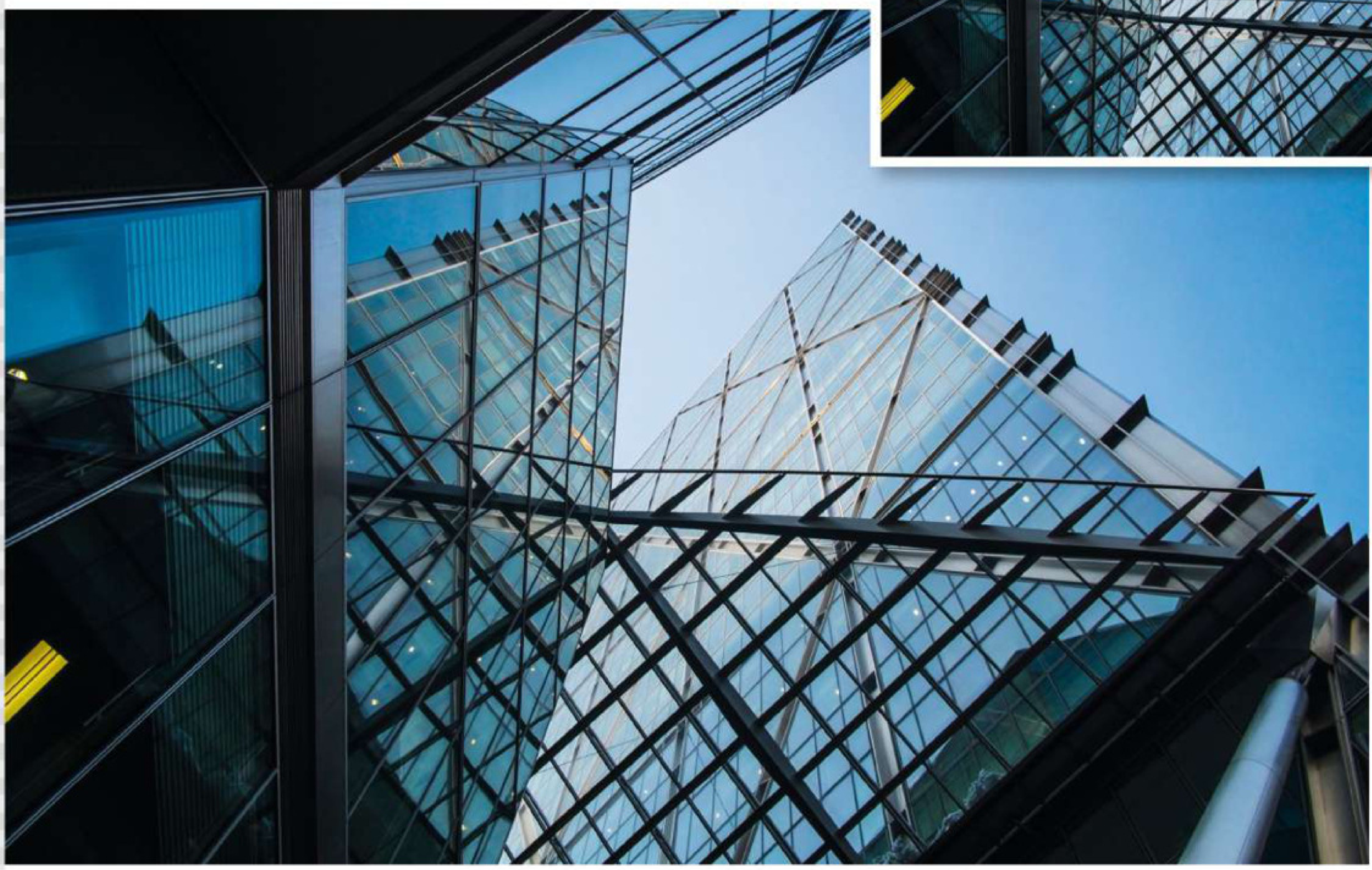
Like many photos, this image has under-exposed midtones, so drag the grey slider left to 1.11 to lighten them a little. The image now has stronger contrast. Click OK. The Levels adjustment you made will now be recorded in the Actions panel. Go to Image›Adjustments›Vibrance.



4 Stop recording

Boost the Vibrance slider to +56 for stronger greens and blues. Click OK. A Vibrance step will appear in your Action. Click the Stop icon. You can now open a similar image, click the 'Boost contrast and colour' Action, then click the Play icon to instantly enhance the photo. ■

GET THE FILES HERE: http://bit.ly/PMZ34



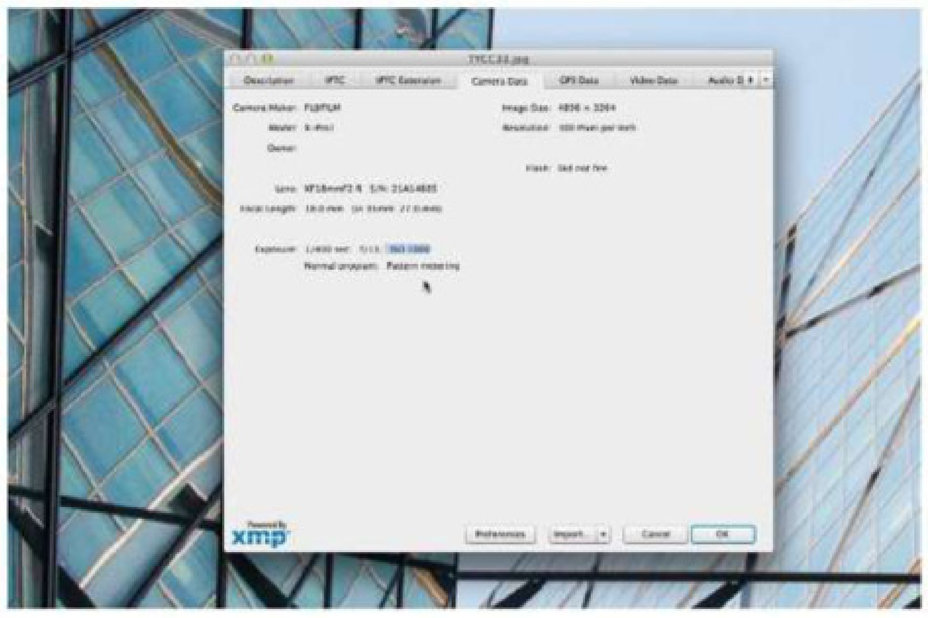
Remove noise from your photos

Smooth out undesirable image noise while preserving detail throughout the photo using the Reduce Noise filter

When shooting with a traditional film camera, you could use film with different ISO speeds to capture more detail in low-light conditions. The faster (higher) the film's ISO speed, the more sensitive it was to available light. A fast film enabled you to avoid using slow shutter speeds in low light, so you could capture detail without the need for a tripod. You could also shoot handheld in locations where a flash was prohibited, such as in a museum or church. However, fast ISO speed film added clumps of grain to your negatives. The higher the ISO speed, the grainier the images would be.

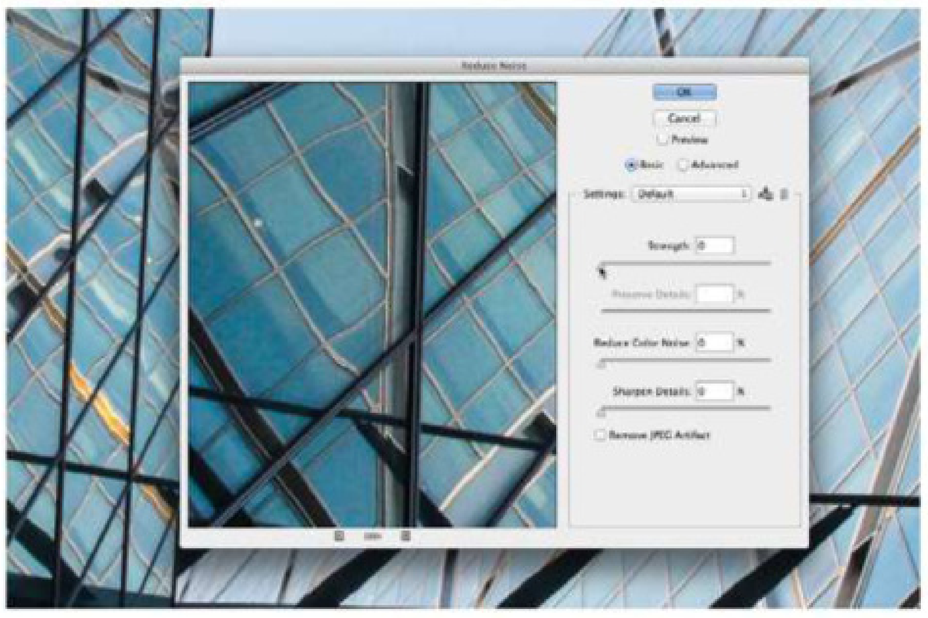
Digital cameras recreate the traditional ISO film speed effect to enable you to capture more detail in low light. As with film, higher ISO settings (such as 1600) are more sensitive to light, but they add more noise to your digital files. Digital noise is a bit like film grain, but it's sharper, uglier and more distracting. There are two types of digital noise – luminance (greyscale) and chroma (colour). Luminance noise appears throughout the tonal range of the image as tiny dots. It can be compared to grain in analogue film, so it isn't as undesirable as chroma noise, which manifests itself as multi-coloured speckles. However, you may still want to smooth out high ISO-induced luminance noise to get a more pristine digital photo.

When reducing the presence of luminance noise, you have to be careful not to blur important details. The Reduce Noise filter's sliders enable you to get a balance between removing noise while preserving detail.



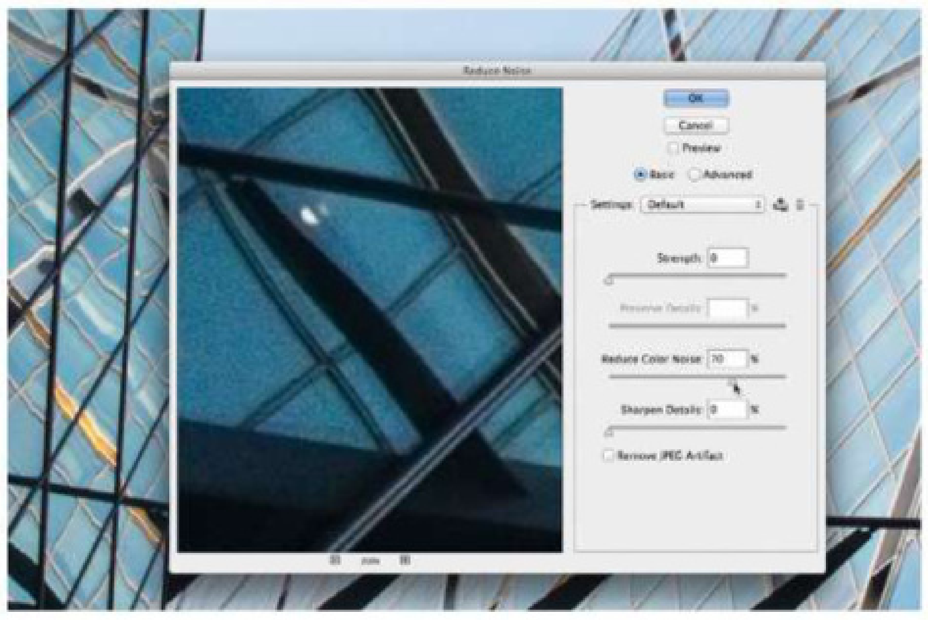
1 Analyse the noise

Open TYCC33.jpg. To see the ISO setting used to capture this image, go to File›Info and click the Camera Data tab. Here you can see that the ISO speed is 1000, so there will be noise present. Click OK. Double click the Zoom tool to display the image at 100%.



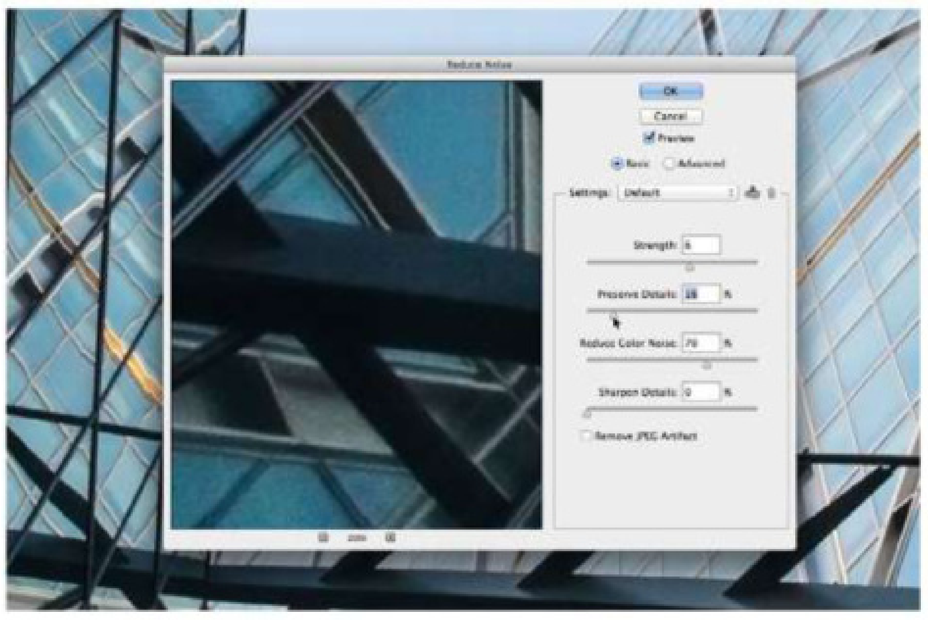
2 Open the Reduce Noise filter

Grab the Hand tool and drag to examine parts of the magnified image. Noise is especially noticeable in darker smoother areas such as the window reflections. Go to Filter›Noise›Reduce Noise. To see how the sliders work their magic, drop them to 0 to start with.



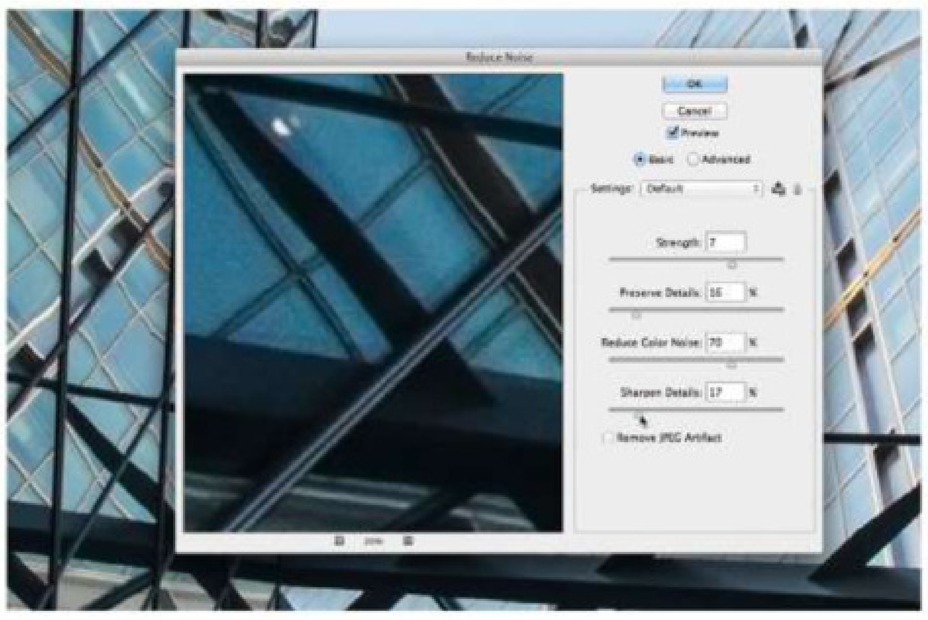
3 Reduce the colour noise

Colour noise is easy to remove because there's no risk of smoothing out important detail. Zoom in to 200% to see the noise more clearly. Drag the Reduce Color Noise slider to 70% to remove the coloured speckles. This just leaves the luminance noise for us to deal with.



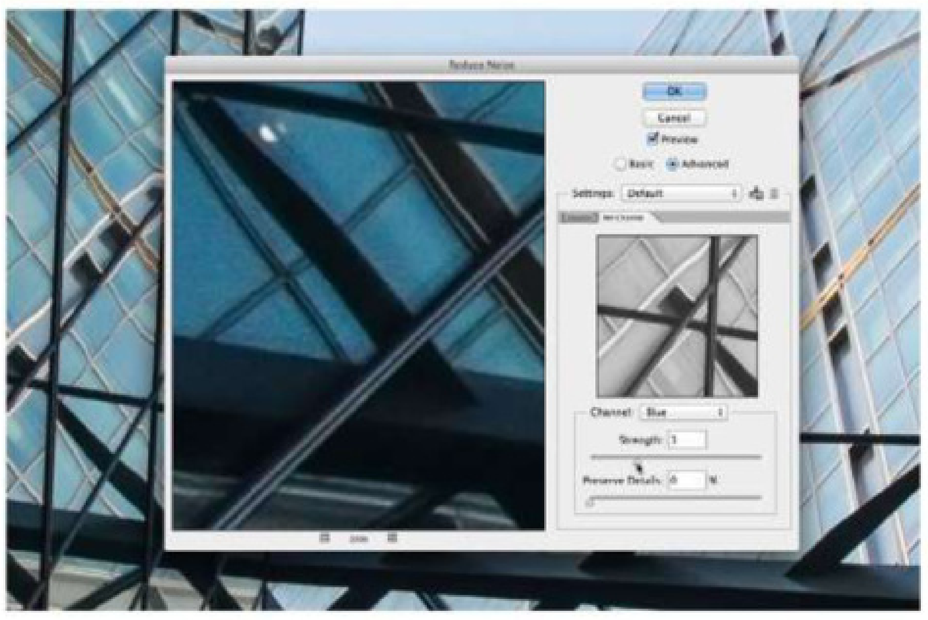
4 Blurred versus sharp

Drag the Strength slider to 6 to start smoothing out the luminance noise. This blurs the noise, but it also blurs our subject's important architectural details. Drag the Preserve Details slider until you get a balance between detail and noise. Here, a value of 16% is a good compromise.



5 Before and after

The Sharpen Details slider restores features that may have blurred. Drag it to 17%. Now that you've restored detail to the image, you can increase the Strength to 7. Click the preview window to see a noisier before version. Release the mouse button to see the reduced-noise version.



6 Advanced options

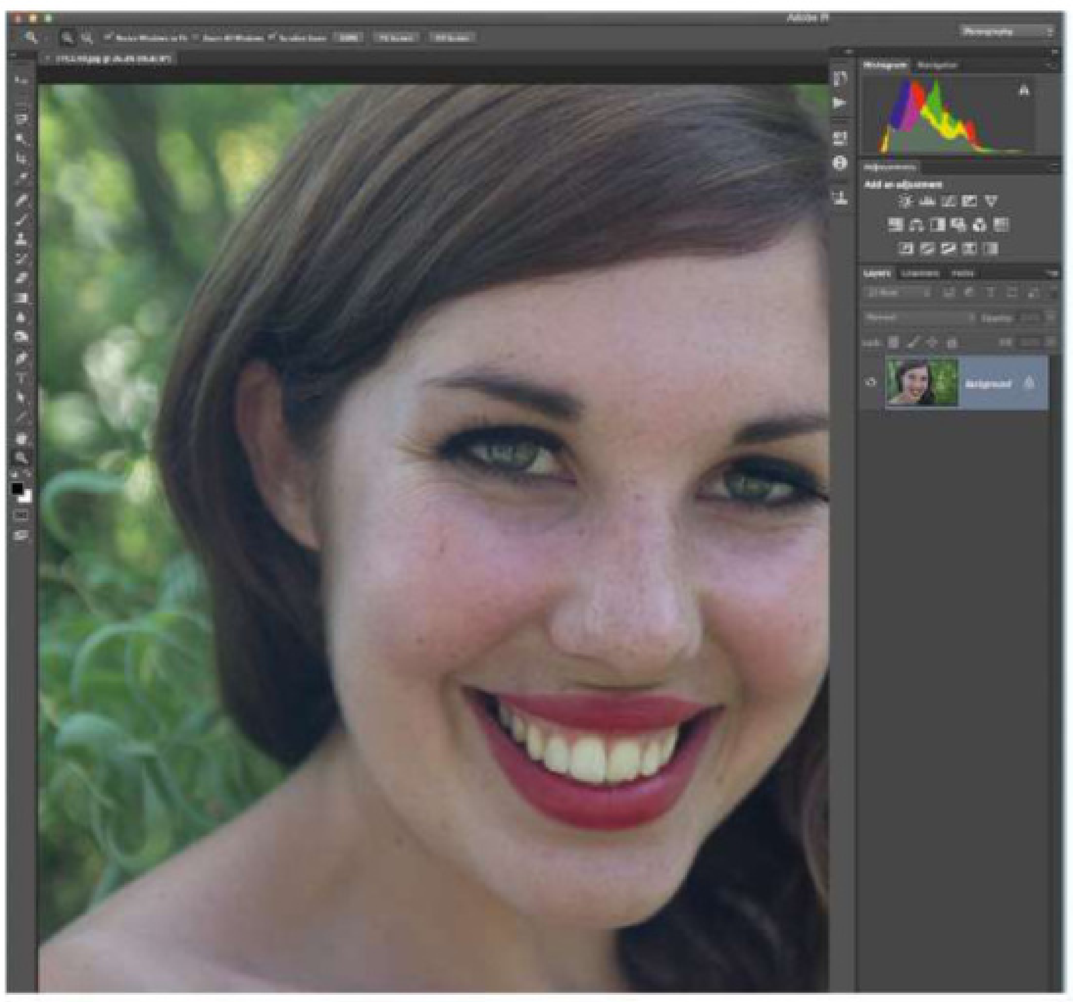
Click the Advanced button. Here you can toggle through the red, green and blue channels that make up the colour image. Traditionally, the blue channel is more prone to displaying noise, so drag Strength to 3. Click OK to remove the image noise. ■

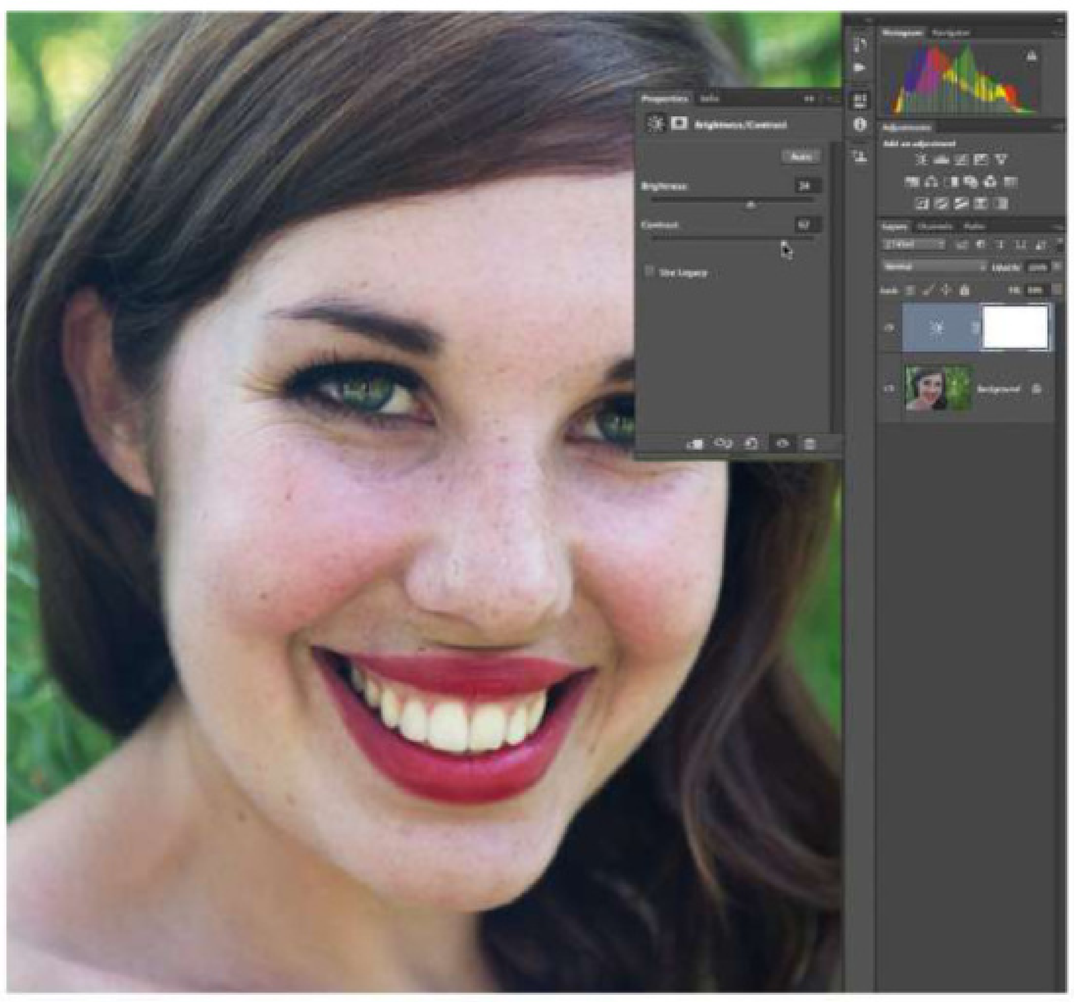
GET THE FILES HERE: http://bit.ly/PMZ34



Enhance a portrait

Fix exposure errors, improve colours, and smooth out unwanted detail in your portraits with our retouching guide



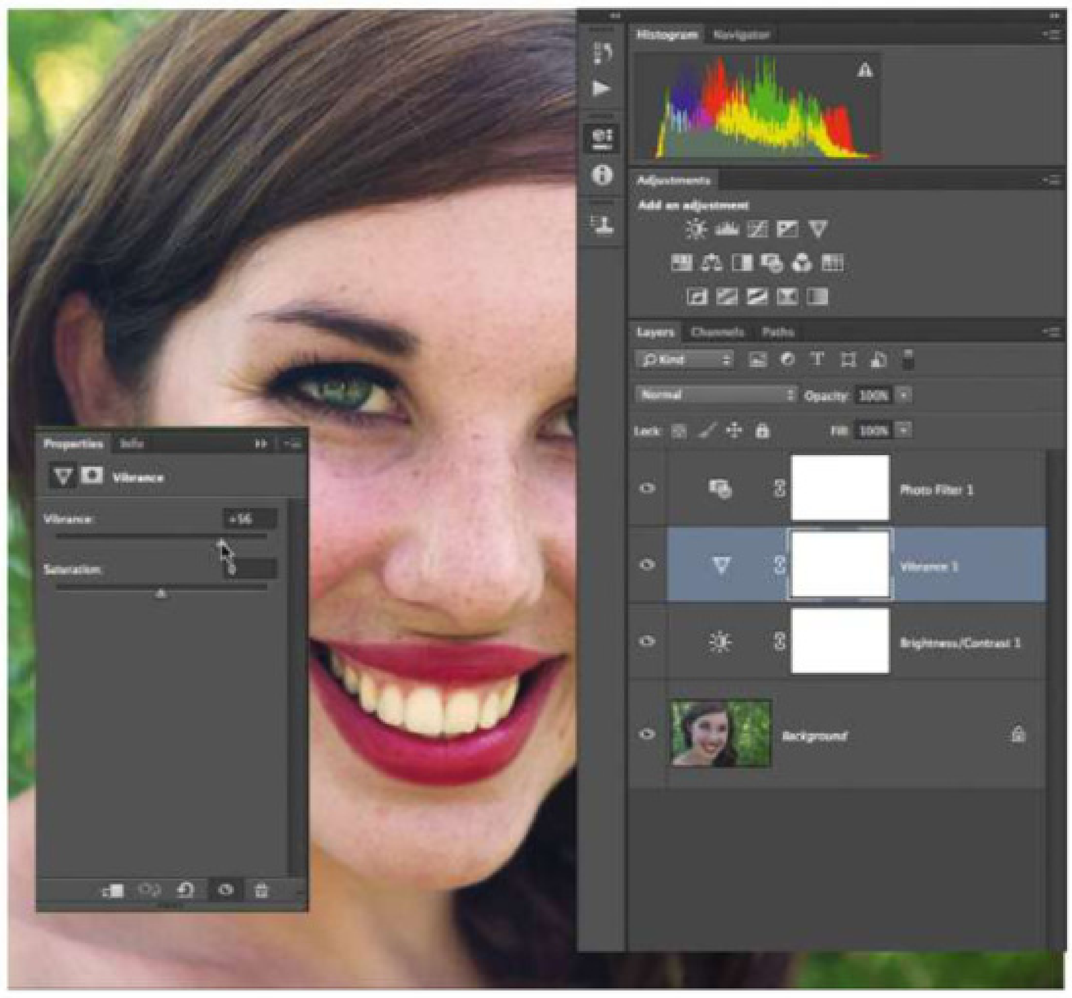


1 Set up the workspace

We're planning to tweak this portrait's colours and tones, so it makes sense to set up the workspace to place the most useful tools close to hand. Go to Window›Workspace›Photography. This gives you access to the handy histogram window so you can analyse the exposure. It also presents you with the Adjustments panel. Go to File›Open and browse to the supplied starting image – TYCC49.jpg. Click Open to bring the image into Photoshop.

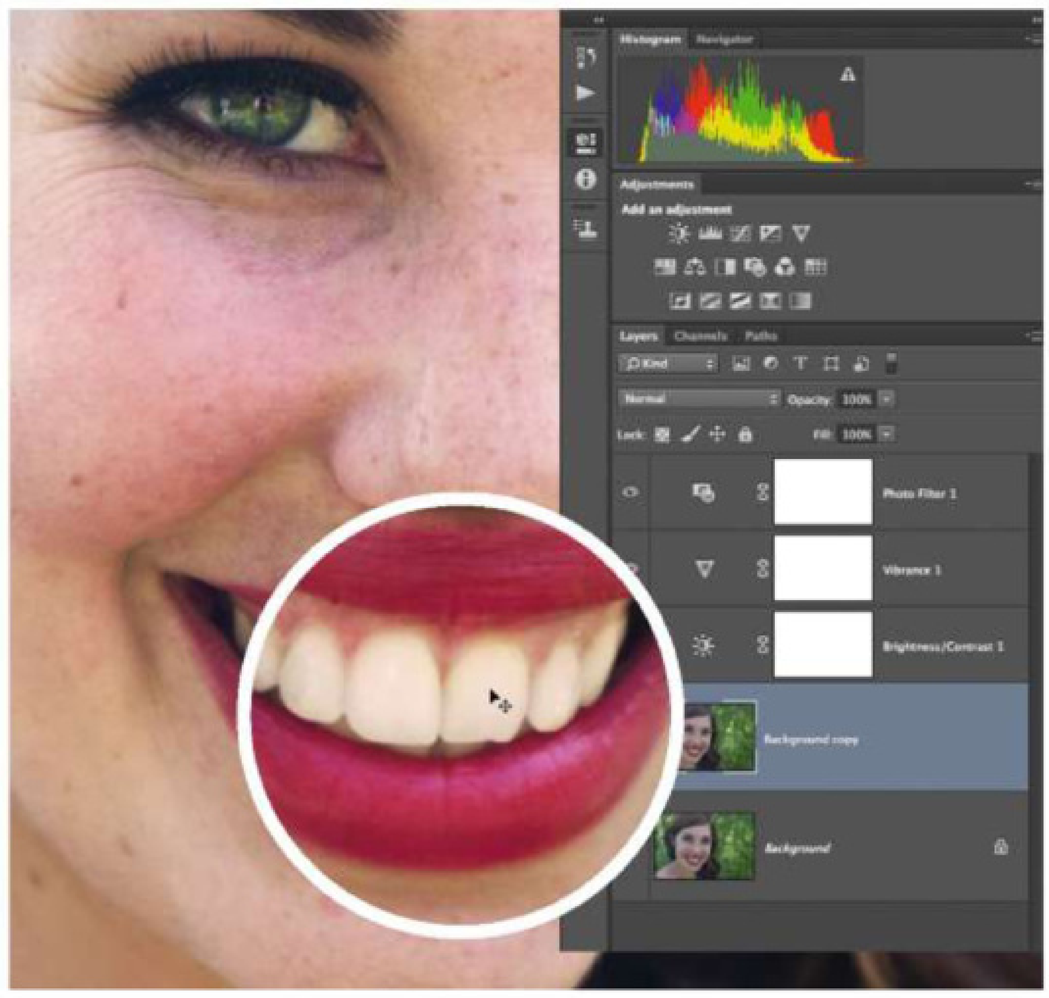
2 Fix the exposure

From the histogram we can see that the image lacks strong bright highlights and dark shadows. With the naked eye we can see that it also has flat contrast. In the Adjustments panel, click the Brightness/Contrast icon to create an adjustment layer. Drag the Brightness slider to 34 for brighter highlights and midtones. Drag Contrast to 63 for whiter whites and blacker blacks. The histogram now displays a wider range of tones.



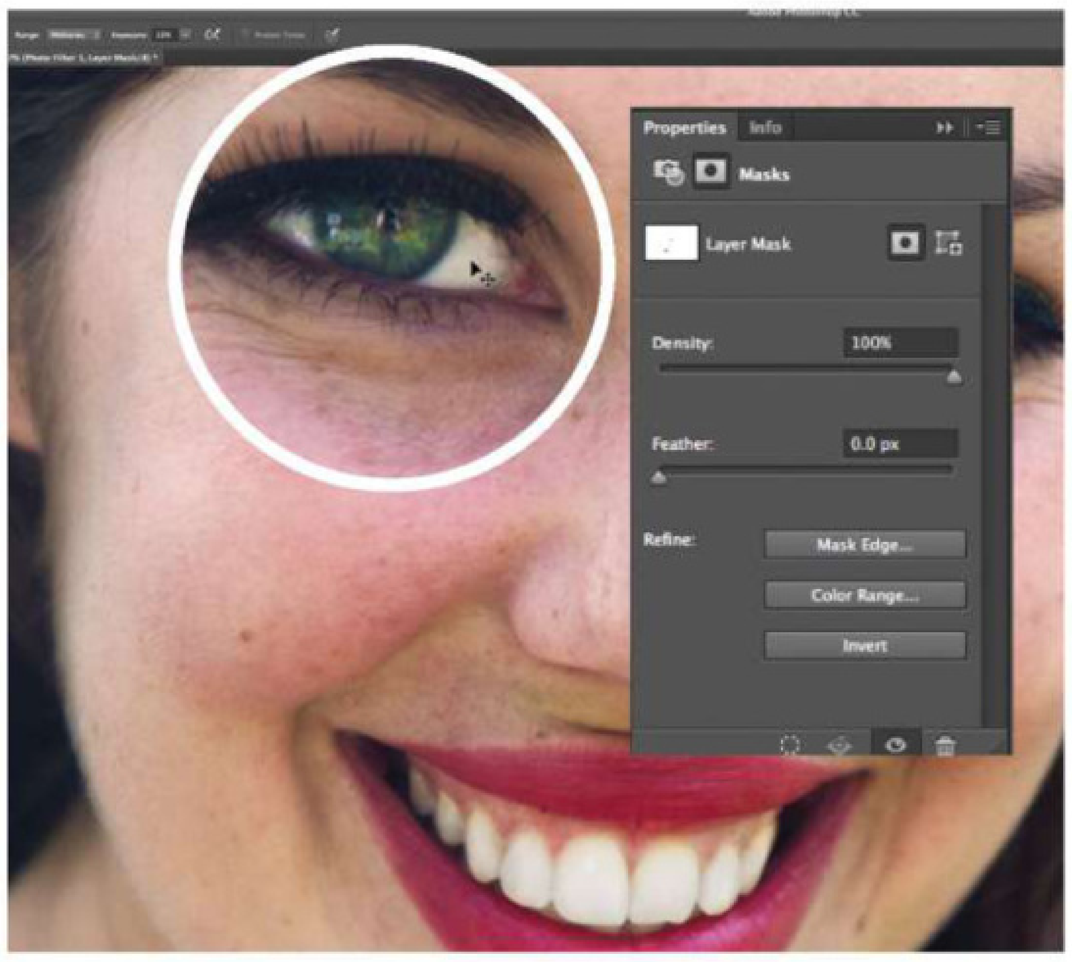
3 Enhance the colours

The subject's skin tones look a little cold and desaturated. To warm them up and create a healthier complexion, click the Photo Filter adjustment layer icon. Set the Filter drop-down menu to Warming Filter (85). Push Density up to 35%. To boost the lipstick colour and the background greens without making the skin tones look too orange, click the Vibrance adjustment layer icon. Boost the Vibrance slider to +56 to apply a selective colour boost.



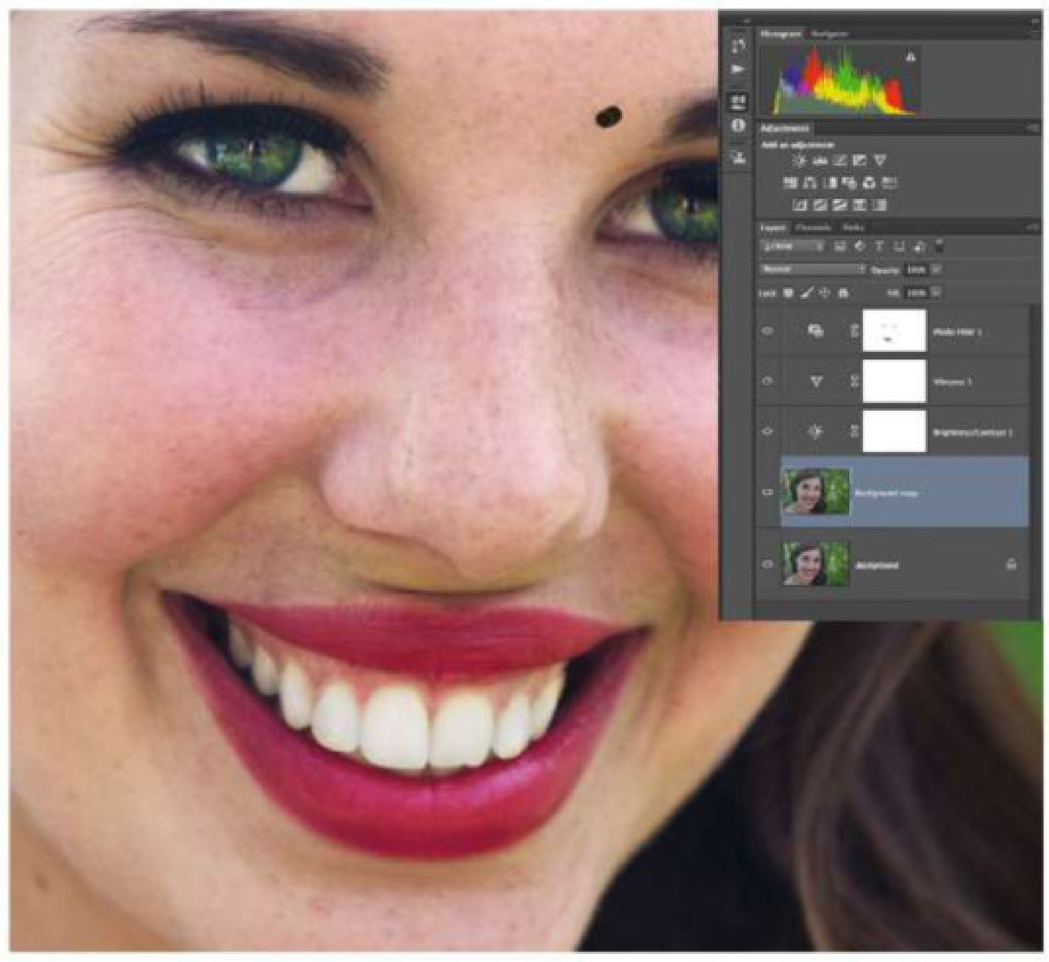
4 Whiten the teeth

Before whitening the stained teeth, click the Background layer thumbnail in the Layers panel and press Cmd/Ctrl+J to duplicate it. This enables you to access the original image if things go wrong. Grab the Sponge tool from the Tools panel (or press Shift+O to cycle to it). In the Options bar, set Mode to Desaturate. Set Flow to 30% so you can build up the adjustment in gradual increments. Paint with a soft brush tip over the teeth.



5 Brighten the eyes

Paint with the Sponge tool over the whites of the eyes to whiten these too – and reduce the appearance of veins. Select the Dodge tool and set Range to Midtones. Drop Exposure to 13% and use a small, soft brush tip to brighten the eye whites and give them more impact. Click the Photo Filter's white mask, grab the Brush tool and paint over the eyes and teeth to remove the effect of the filter from these areas.



6 Tidy up

Some models may suffer temporary skin spots that you can conceal with a click of the Spot Healing Brush tool. You can also use this tool to remove freckles, although arguably these features are part of the subject's character so they should be left alone. To remove our model's eyebrow stubble, set the Spot Healing Brush to Content-Aware. This will stop it from cloning eyebrow hairs in areas that should feature clean skin. ■

Teach yourself Photoshop

You've read the book, now watch the videos!

Teach Yourself Photoshop is also available as a 50-part video course. Choose either the DVD edition or the interactive iPad app and discover another great way to learn Photoshop

Easy-to-use interface helps you focus on learning Photoshop

Learn entirely at your own pace by pausing the action at any time

Available on the App Store

The DVD version comes in a stylish protective case for easy filing



Save 40%!

Use code MFMDVD and pay just £11.99 for the DVD (normal price £19.99)

Get the DVD version today from our secure online store:

myfavouritemagazines.co.uk/photo


Photoshop File Edit Image Layer Type Select Filter 3D View Window Help
Adobe Photoshop CC



Creative effects

Discover the techniques you need to use to transform your photos with Photoshop's creative processing tools

126 Make stunning black and white photos
Create a monochrome conversion of an image using the original colour information in the photo to define the tones

128 Split-tone a monochrome photo
Discover how to apply separate washes of colour to your monochrome conversion's shadows and highlights

130 Make a large panoramic image
Discover the best way to combine multiple landscape photographs into a single panoramic picture

132 Create a high dynamic range image
Use Photoshop's Merge to HDR Pro feature to create and modify a stunning HDR composite image

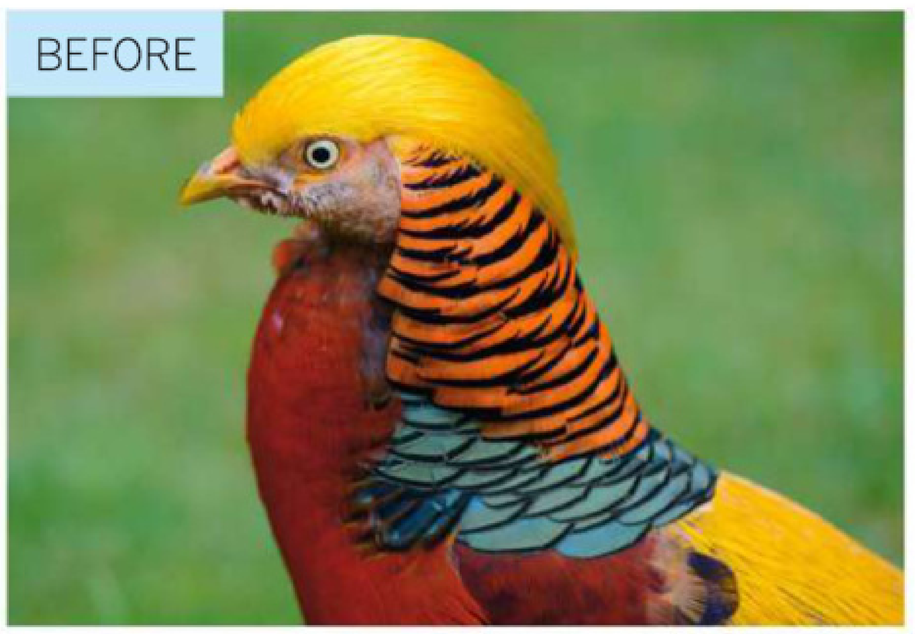
136 Use Photoshop's creative distortion tools
Discover a host of fun pixel-distorting tools and commands for use in your creative projects

140 Correct unwanted lens distortion
Use the Lens Correction and Adaptive Wide Angle filters to counteract a range of lens-related distortions

GET THE FILES HERE: http://bit.ly/PMZ34

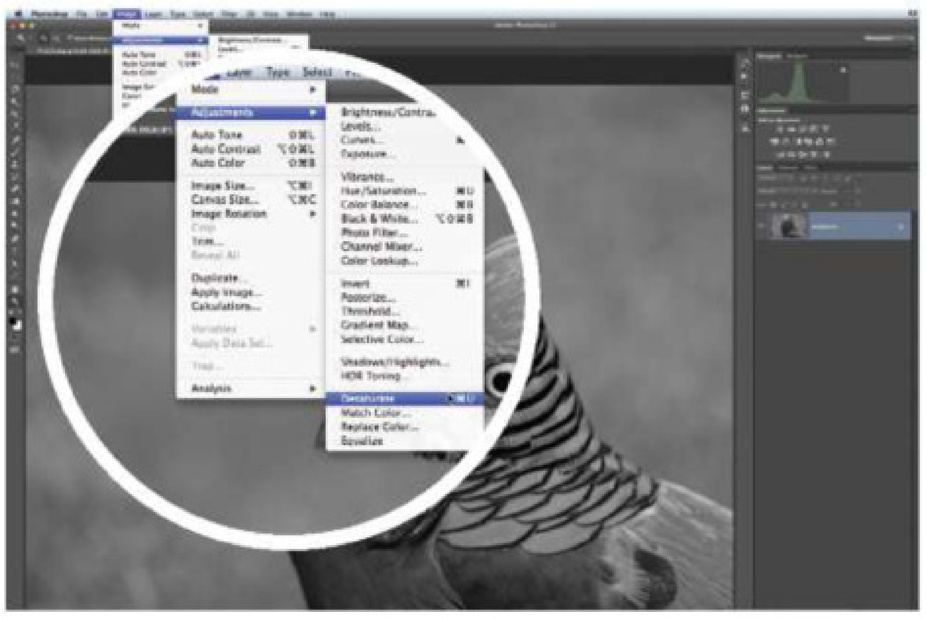
Go black & white

Create a monochrome using the original colour in the photo



Converting a colour image to monochrome allows the eye to pay more attention to contrasting shapes and textures in the frame. When shooting with black-and-white print film, analogue photographers would place coloured filters over the lens to lighten or darken specific colours in the scene. For example, a red filter would darken skies in black-and-white photos.

You can mimic this traditional filter technique courtesy of Photoshop's Black & White adjustment layer. This feature's coloured sliders enable you to target specific colours and lighten or darken them in the monochrome conversion.



1 Open the image

Open TYCC23.jpg. Choose Image›Adjustments› Desaturate. This creates a black-and-white print, but it's a drab wash of greyscale tones in which nothing stands out. Go to Edit›Undo Desaturate. You can produce a much more effective mono image based on the subject's colours.



2 Create an adjustment layer

Go to Layer›New Adjustment Layer›Black & White. Click OK. The Properties panel displays six coloured sliders. These will initially be set automatically to lighten or darken specific colours in the image. Lighten the bird's yellow plumage by dragging Yellows to 124.



3 Adjust the image directly

Instead of dragging sliders, you can drag on the image to lighten or darken specific colours. Click the Targeted Adjustment button. Go to the Options bar and set the Sample Size to 3 by 3 average. Click and drag right on the bird's belly to lighten the red feathers.



4 See before-and-after versions

You can see the original colours of the image by toggling the adjustment layer on and off. This helps you decide which colours you'd like to lighten or darken. Here we've sampled and darkened the bird's cyan feathers for more tonal variety in the monochrome conversion. ■

Mono presets in action

Use the Black & White adjustment layer's presets to adjust the six colour sliders and create a range of mono conversions



Infrared

This preset mimics the effects produced by infrared film, which is sensitive to colours that the human eye can't see. When shooting landscapes with infrared film, greens and yellows show up with a much a lighter tone, as we can see here.



Maximum White

The Infrared preset pushes the yellows to 235 so that they feature no texture detail. The Maximum White preset sets all of the six colour sliders to a value of 100, which produces brighter versions of each colour without causing clipping.



High Contrast Red Filter

This preset adjusts the sliders so that the cyans and greens become darker. As well as darkening the cyan feathers, the preset darkens the green background, which helps the lighter parts of the bird stand out more effectively in contrast.



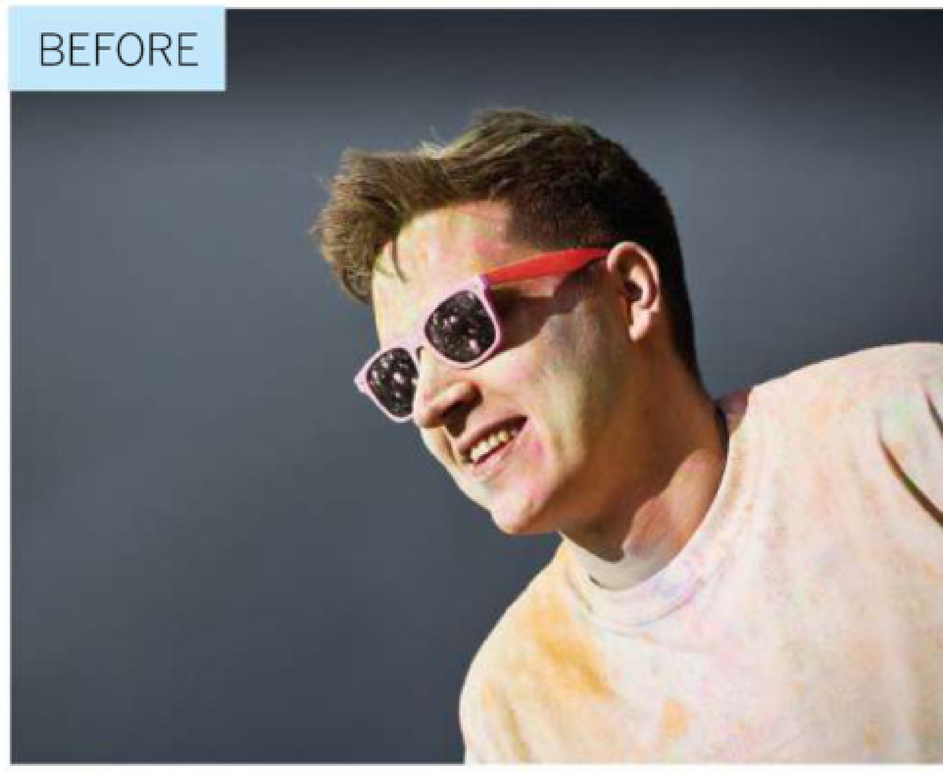
Blue Filter

Here the preset sets the reds, yellows and greens to 0, while boosting the cyans, blues and magentas to 110. This filter would lighten a blue sky in a conventional landscape, but it doesn't suit our source file with its limited blue pixels.

GET THE FILES HERE: http://bit.ly/PMZ34

Split-tone a monochrome

Discover how to apply separate washes of colour to your monochrome conversion



On the previous pages we used an adjustment layer to remove distracting colour information and produce tonally contrasting shapes and textures. But you can enhance your mono conversions by gently reintroducing fine washes of colour to the shadows and highlights. This split-tone (or duotone) technique can make a monochrome image look more interesting and influence the mood that it evokes. In the split-toned image below, the shadows have a cool blue tint while the lighter tones have a warmer wash of sepia. These contrasting colours tease out the textures and shapes in the scene.

Camera Raw has a Convert to Grayscale panel that enables you to lighten or darken particular colours. This works in the same way as the Black & White adjustment layer that we featured on the previous pages. The raw editor also has a Split Tone panel that enables you to independently colour your mono's shadows and highlights. The standard Photoshop workspace lacks a dedicated split-toning command, but we'll show you a way to produce a similar split-toned effect by using a Gradient Map adjustment layer. ■

Photoshop Anatomy The Gradient Editor

Apply Photographic Toning presets to your mono conversion



1 GRADIENT MAP

Click here to summon the Gradient Map as an adjustment layer. A gradient will be created using the foreground and background colours.

2 PROPERTIES PANEL

When you create an adjustment layer, it's editable properties will appear in this panel. Click here to apply one of the default gradients.

3 GRADIENT EDITOR

Here you can change the colours used to tint the image. You'll see a collection of sixteen gradients. Move the cursor over a thumbnail to see its label.

4 PRESETS

Click this icon to access a list of preset gradient collections. For suitable split-tone gradients choose the Photographic Toning collection. A dialog will ask if you want to replace the default gradients with the new collection. Click OK.

5 GRADIENT PREVIEW

Click a thumbnail to load the Sepia-Blue 1 preset. A preview of the gradient will appear here. This creates a classic blue-to-sepia split-tone gradient that adds contrasting cold and warm colours to the photo.

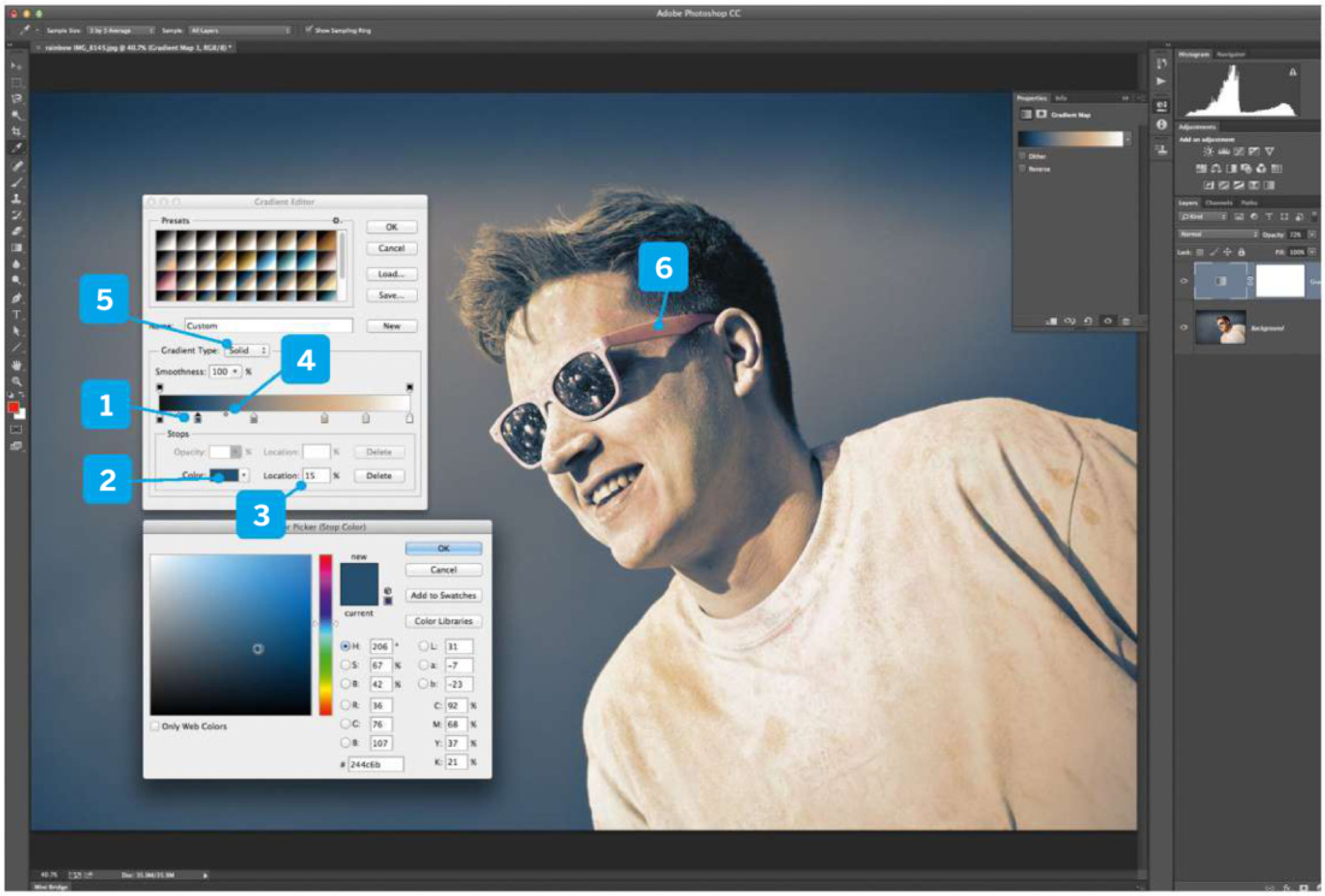
6 SPLIT-TONE

The Photographic Toning Sepia-Blue 1 Gradient Map adds dark blues to the shadows and midtones of our greyscale conversion. To the right of the gradient preview we can see sepia tones. These are added to the highlights of the image.



Overview Editing the Gradient Map

Fine-tune the split-tone effects produced by a Gradient Map preset



1 COLOR STOPS

Our preset gradient was created using colour stops. The shadow tinting stops on the left range from black to dark blue. A neutral grey stop in the middle of the gradient eases the transition from blue to sepia in the midtones. Click the second stop from the left and hit Backspace to delete it.

2 COLOR

Click a stop to see the attached colour. To tweak the colour, click this icon and the Color Picker (Stop Color) window will appear. Here we've sampled a slightly lighter blue to fine-tune the colours in the shadows.

3 LOCATION

You can make a specific colour appear in lighter or darker areas by clicking the color stop and dragging it left (to tint more shadows) or right (to alter the highlights). The location value of the edited color stop will appear in this box.

4 MIDPOINT

When you select a color stop, you'll see these diamond-shaped midpoint icons appear. By dragging them left or right you can create a tighter or wider gradient between the active colour stop and its immediate neighbours.

5 SMOOTH AND SOLID

By default our preset gradient is set to Smooth, so that there's a gentle blend between the blue-to-sepia colour change in the shadows, midtones and highlights. If you change Type to Noise you'll get a more chaotic posterised look.

6 OPACITY

Because our Gradient Map is being applied as an adjustment layer, we can reduce the intensity of the split-tone effect by dropping the layer's opacity to 72%. This reveals a hint of the image's original colours from the image layer below.

GET THE FILES HERE: http://bit.ly/PMZ34

Make a panorama

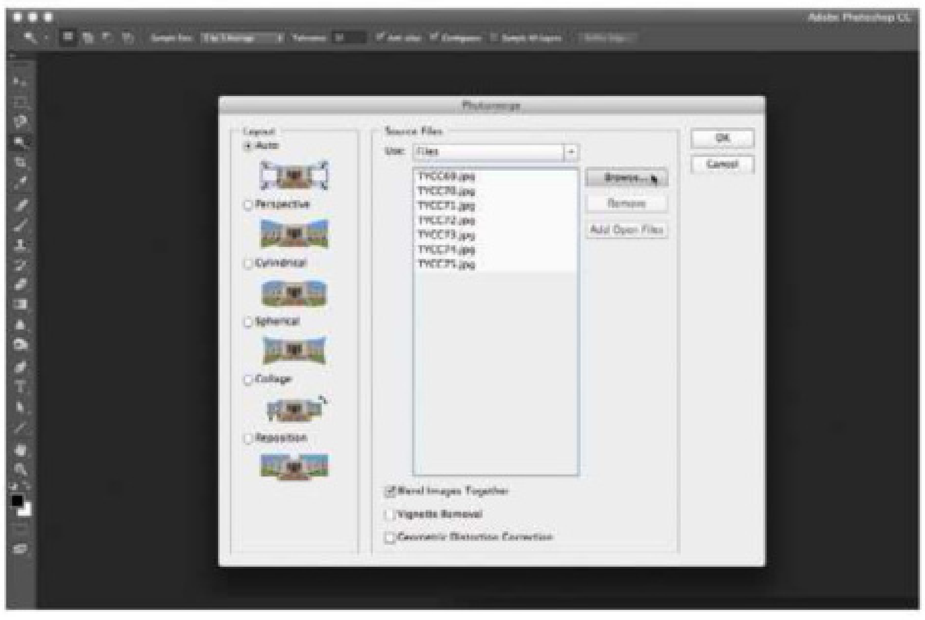
Discover the best way to combine multiple images



Earlier in the book we used layers and masks to combine details from different photographs to make a composite image. These techniques can be very time consuming. Photoshop's Photomerge command enables you to automate the processes of importing multiple images into a single document and blending them into a seamless panorama.

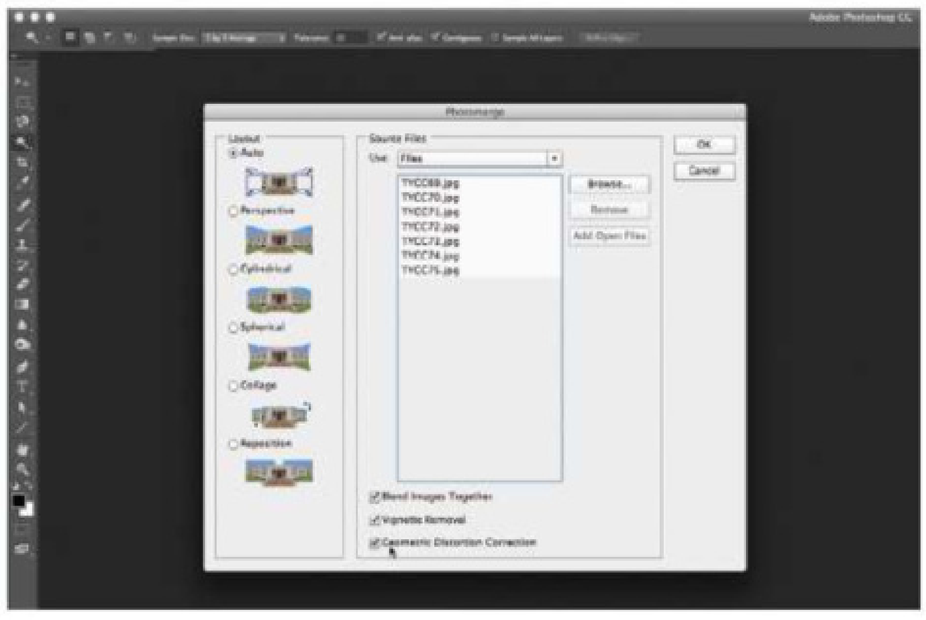
A photograph of a landscape can be disappointing when compared with our memory of the scene, because our peripheral vision tends to give us a wider field of view than a camera lens. You could try shooting with a wide-angle lens, but this can darken the corners of the image, and make the vertical lines at the edges of the frame curve. By panning the camera to shoot multiple images of the scene, you can capture a wider field of view with less vignetting and geometric distortion, and also produce a much larger print, especially if you shoot in portrait orientation.

You can then stitch these separate images together using the Photomerge command to create a stunning wide-angle composite that reveals more of the location than your lens could capture in a single shot. Photomerge automatically creates a wider canvas, positions the images so that the edge details overlap, and blends their edges together using masks. It also corrects vignetting and distortion, to help the images blend together.



1 Select the images

Browse to the panorama source images in Bridge, Shift-click to select them and choose Tools›Photoshop›Photomerge. Alternatively, in Photoshop choose File›Automate›Photomerge. Click Browse and navigate to select TYCC69.jpg to TYCC75.jpg.



2 Choose your options

Choose the Auto Layout option. This enables Photomerge to move the images so that they overlap, and distort them if necessary to get them to align. Tick Blend Images Together to create masks. Tick Vignette Removal so that areas such as the sky will be more even.





3 Create a panorama

Click OK. Photomerge creates a wider canvas, adds the images as layers and moves them into position. You may notice transparent areas around the edges of the repositioned and distorted images. You could crop the edges, but that would create a much smaller panorama.

4 Fill the edges

Go to Layer›Flatten Image. The transparent edges will turn white. Grab the Magic Wand and select the white pixels. Choose Select›Modify›Expand. Choose a value of 4 pixels. Click OK. Go to Edit›Fill›Content-Aware. Press Cmd/Ctrl+D to deselect the marquee. The white patches vanish. ■

GET THE FILES HERE: http://bit.ly/PMZ34

Create an HDR composite

Make a stunning high dynamic range composite photo

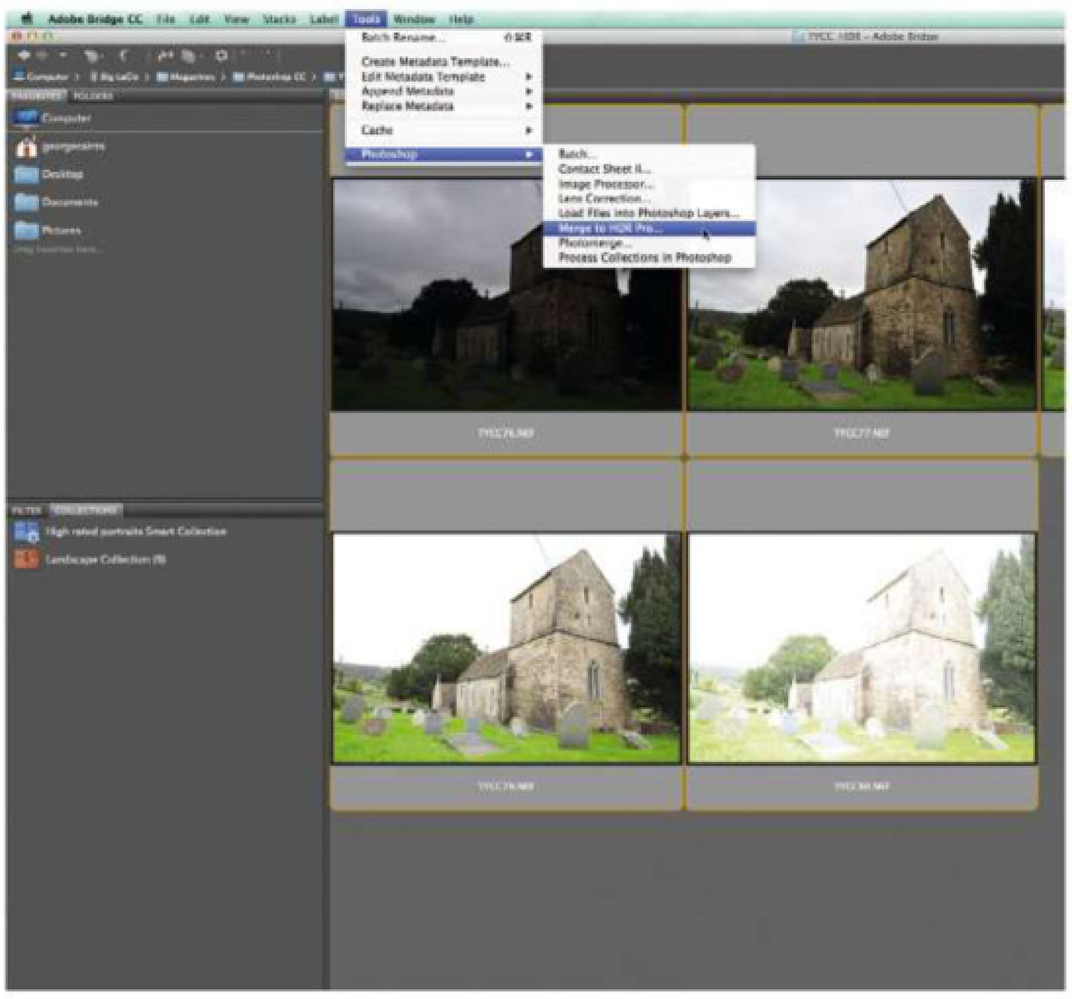
Your camera's aperture and shutter speed settings can be set to reveal detail in dark areas, but this can cause lighter parts of the scene to over-expose and lack detail. If you expose to capture highlight detail then the shadows may clip and print as pure black. You could try revealing missing tonal detail using the Shadow/Highlights command, but this risks adding noise to the adjusted areas. By lightening under-exposed shadows you tend to create washed-out colours too.

In chapter 8 we processed a raw file twice to create two versions of a scene that showed detail in the shadows and the highlights. We then blended the correctly exposed areas of the two images together using layer masks. If you don't shoot in raw, you can set your camera to shoot a series of bracketed exposures. This will ensure that you record detail throughout a scene's tonal range. In this tutorial we'll show you how to combine your bracketed exposures to create a single composite image with a high dynamic range. This means that more tonal detail will be visible in the composite image's shadows and highlights. The process of creating an HDR image also creates a rich (and sometimes surreal) range of colours, which some find desirable.

HDR images contain tones that are too bright to be reproduced onscreen or in print, so Photoshop's Merge to HDR Pro command enables you to use a process called Tone Mapping to produce a viewable composite image. This forces the brightest parts of the HDR image to fall within a printable range of tones.







1 Open the images

Open Bridge and browse to the folder containing our five starting images. Shift-click to select them all. Go to the Tools menu and choose Photoshop›Merge to HDR Pro. The images will automatically be added to separate layers in a Photoshop document, then opened in the Merge to HDR Pro window. Alternatively, you can import them directly into Photoshop via File›Automate› Merge to HDR Pro.



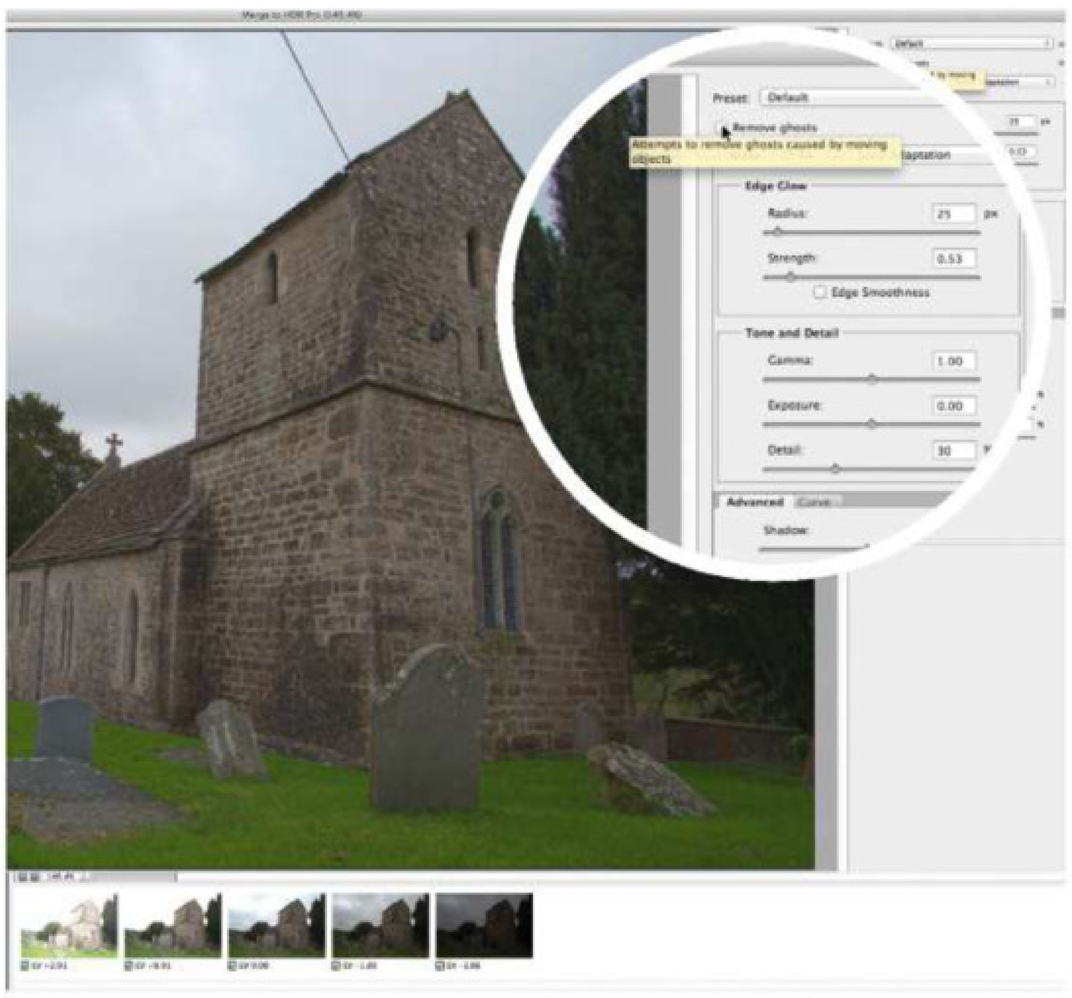
2 Merge the images

The bracketed source files reveal the location's shadow, midtone and highlight details. You can see the difference in f-stop values below each thumbnail. You can also tick to add or remove specific images from the composite. The Merge to HDR Pro command attempts to combine the images to show detail throughout the scene's tonal range. The initial composite looks a little under-exposed and lacks colour and contrast.



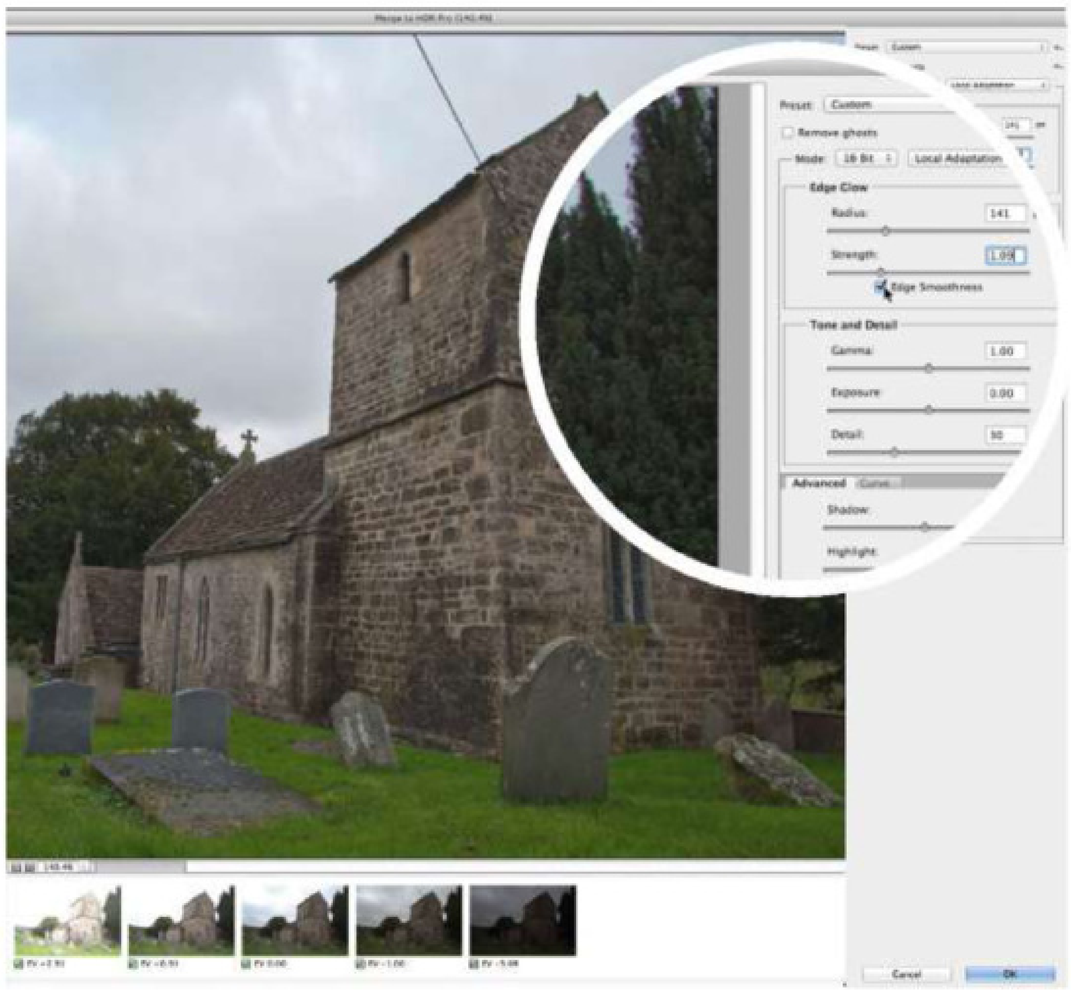
3 Play with the presets

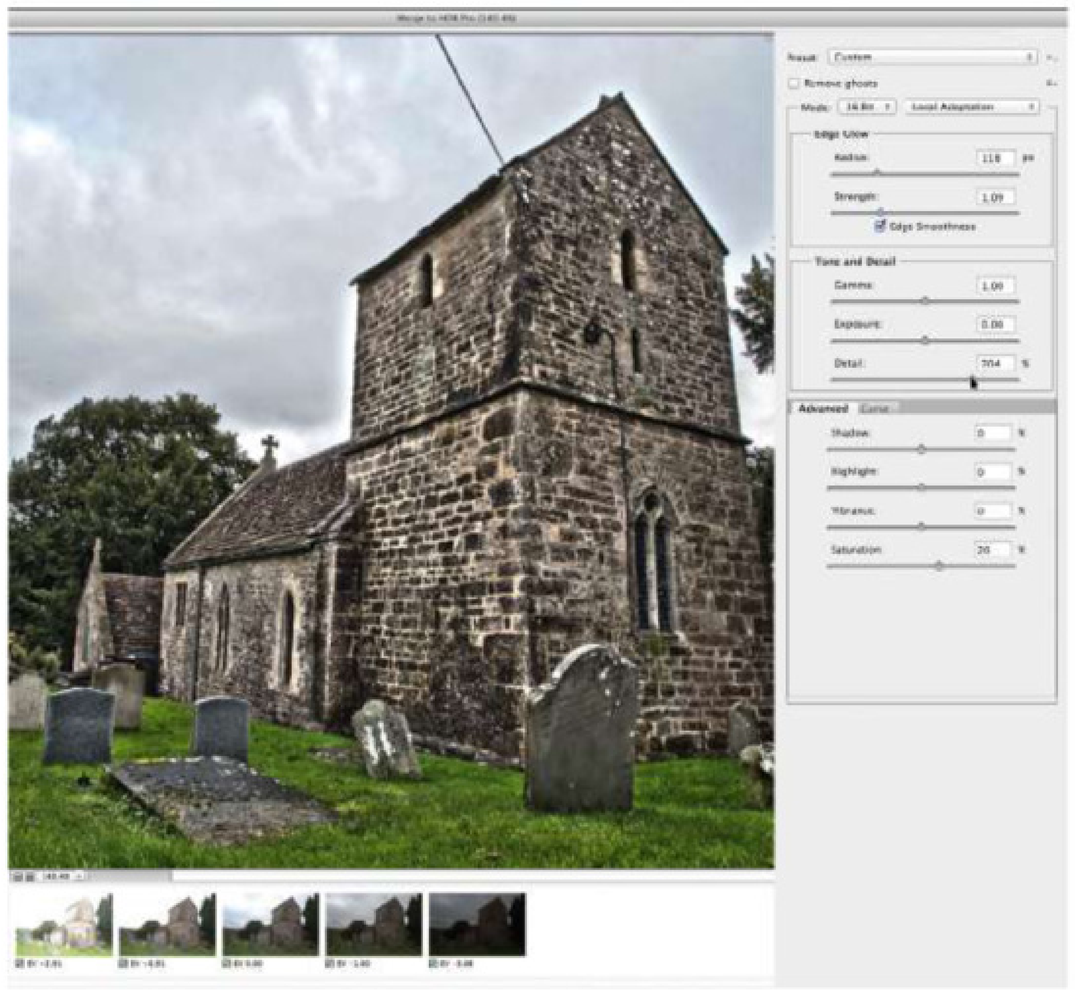
A good way to discover how the Merge to HDR Pro command works is by experimenting with the Presets drop-down menu. Set it to Surrealistic high-contrast. This creates more texture detail and vibrant colours. It also adds white haloes around the edges of contrasting objects such as the building. These somewhat unsightly haloes are the hallmark of the HDR process. You can reduce their intensity for a more subtle look.



4 Remove the ghosts

Most of the Presets produce results that are over the top. Set the Presets drop-down menu back to Default, so that you can adjust the contrast and colour manually. When shooting multiple exposures you risk capturing moving objects such as wind-blown trees. This can add blur artefacts to the composite. In these situations tick Remove Ghosts. In this instance we don't have any movement to worry about, so leave this option clear.





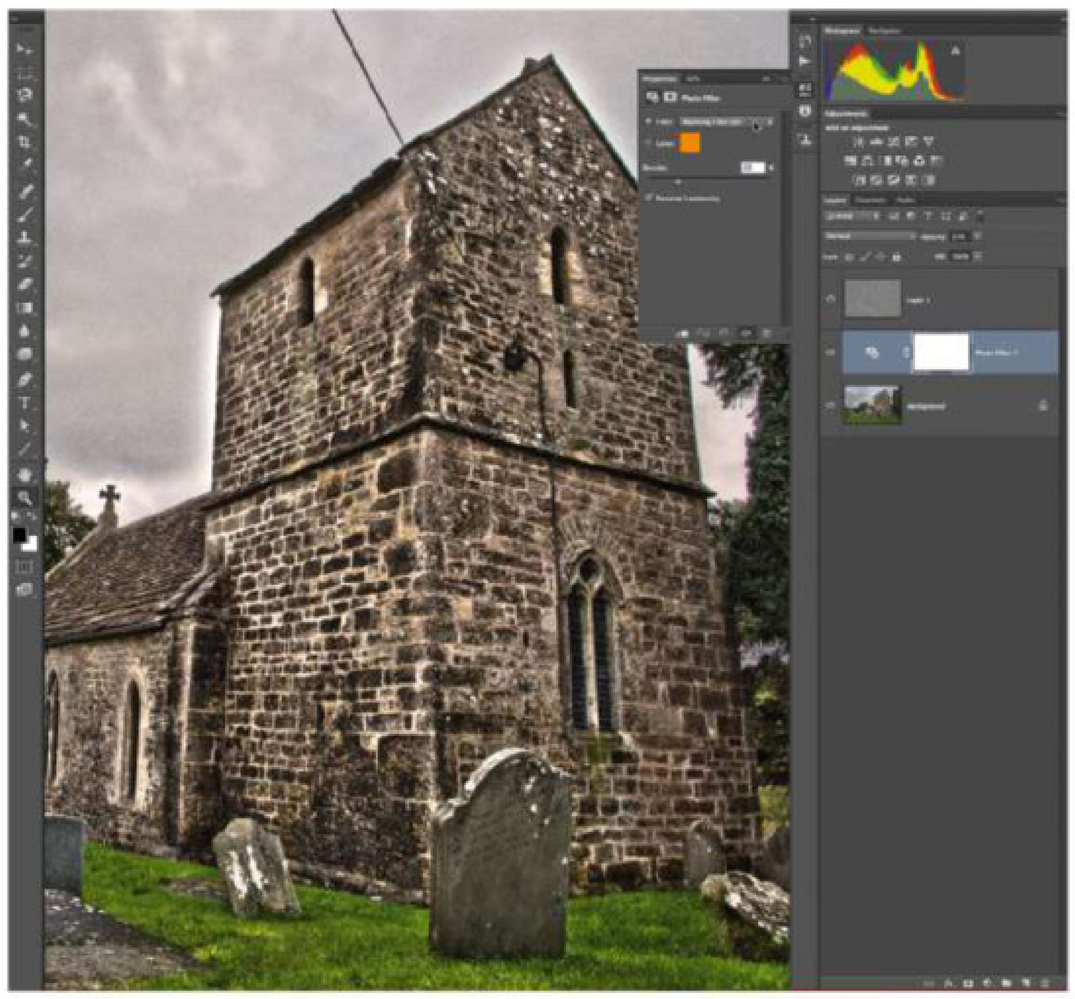
5 Enhance the textures

To make flat-lit objects such as the church and its murky midtone brick textures stand out, go to Edge Glow. Move the Radius slider up to 141 pixels to increase the spread of the glow. Slide Strength up to 1.09 to increase the intensity of this contrast change. These lower slider settings produce more subtle results, which helps keep the haloes at bay. For a more intense edge contrast change, tick the Edge Smoothness box.

6 Add detail

Go to the Tone and Detail panel and drag the Detail slider up to 24%. This increases the contrast between shadows and highlights around the edges of fine details in the image, making them pop out more effectively. This slider performs a similar task to the Smart Sharpen command in the main Photoshop menu bar. You'll now see a hint of a halo around the edges of the church, which you can reduce by dropping the Radius slider in the Edge Glow section to 118.





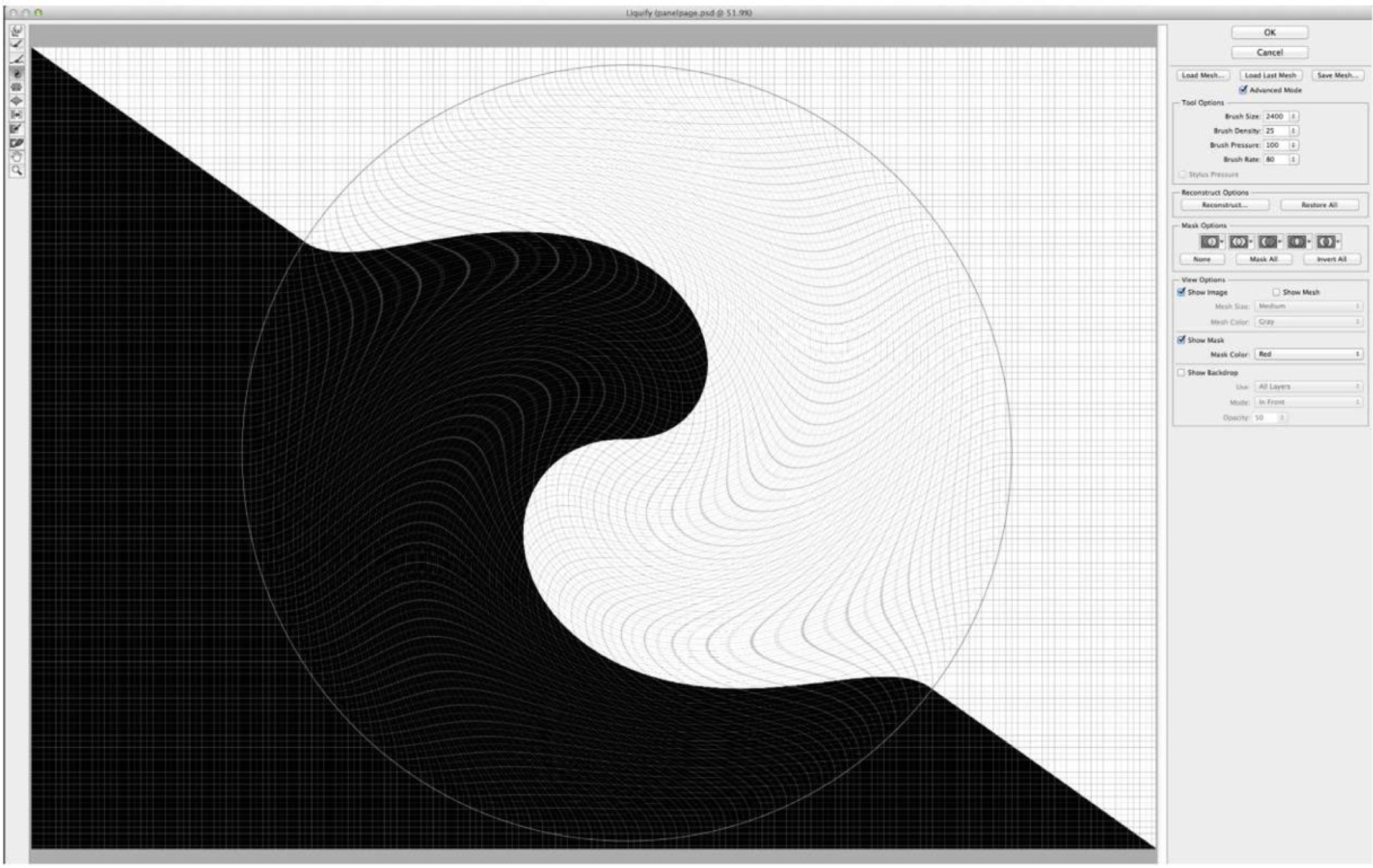
7 Adjust the shadows and highlights

You can lighten under-exposed shadows by dragging the Shadow slider to 35%. This adds lighter shadow details from the brighter bracketed exposures to the HDR composite. Claw back some clipped highlight detail in the sky by dropping the Highlights slider to −33%. For more striking colours, push Vibrance up to 46%. Click OK to finalise your HDR composite and take it into the main Photoshop editor.

8 Fine-tune the result

Grab the Burn tool and set Range to Shadows. Set Exposure to 16%. Paint over the clouds to darken the shadows and create more contrast with the lighter details. Use the Sponge tool to desaturate any multi-coloured artefacts in the sky. Edit›Fill a new layer with grey and set its Blend mode to Overlay. Choose Filter›Noise›Add Noise. Set Amount to 117%. Tick Monochromatic. Click OK. Set the layer opacity to 29%. ■

GET THE FILES HERE: http://bit.ly/PMZ34



Be more creative with distortion tools

Discover how to use Photoshop's fun image-distorting tools and commands in your creative projects

Photoshop has a suite of tools and commands that enable you to distort and warp an image for creative effect. The aptly named Liquify filter enables you to make pixels behave like a liquid, so you can pull, stretch and mould your subjects into stylised caricatures, or turn a picture into paint-like smears, for example.

The Liquify filter has no bounds, which can lead to over-the-top results. For more control over your distortions, try the Warp transform command. This places a grid over the image or an area defined by a selection. By dragging inside the grid you can push pixels around in an organic way. The warp grid also has control handles at each corner so you can distort the selection with more control. The Options bar also has a set of preset shapes that you can apply to quickly warp pixels.

The newest (and possibly the most useful) addition to Photoshop's pixel-distorting toolset is the Puppet Warp command. This enables you to add control pins to a mesh that you can drag to alter specific parts of the subject, so you could make an animal look in a different direction, as in the tutorial on the following pages. Check out the annotations on the right for more warping, liquifying and distorting tips. We'll then demonstrate how to select and manipulate our penguin starting image using the Puppet Warp command.

Photoshop Anatomy Liquify filter options

Here's how the key Liquify filter tools can distort your photo's pixels

1 RECONSTRUCT TOOL

This tool enables you to reduce the effect of other tools such as the Forward Warp tool. Simply paint over distorted areas to gradually restore them to their unedited state. The Smooth tool does a similar job.

2 FORWARD WARP

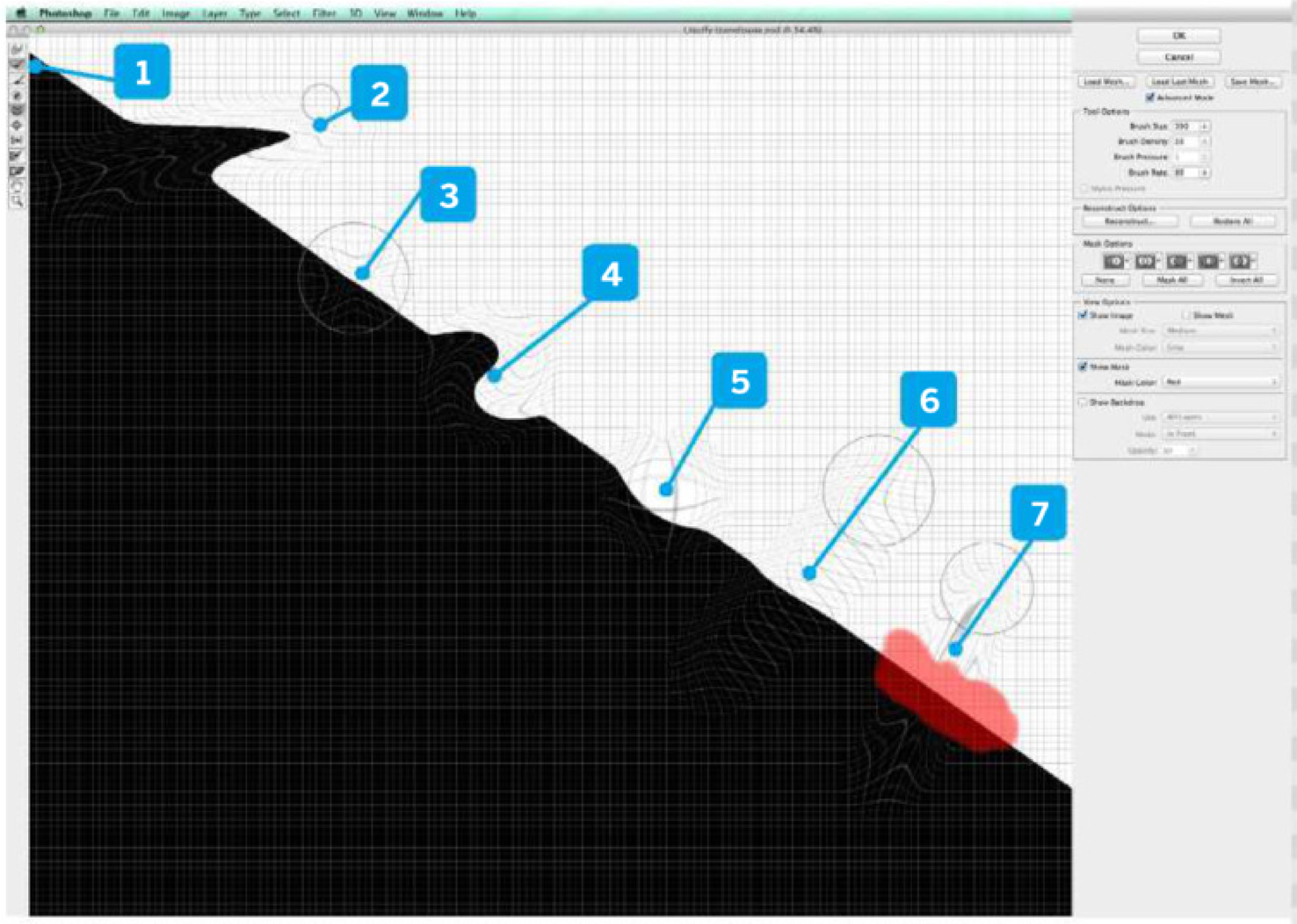
A cousin of the Smudge tool, the Forward Warp tool enables you to drag pixels in the direction that you move the cursor. Liquify options such as Brush Pressure will alter the length of the smear.

3 PUCKER TOOL

This tool sucks pixels inwards towards a central point, causing the pixels to deform like a trampoline that's being stood on. It's useful for creating vortex or black-hole effects.

4 TWIRL CLOCKWISE TOOL

This tool works like a mini tornado, sucking up pixels and swirling them around a central point. To access this one in Photoshop CC you need to click the Advanced Mode box on the right.



5 BLOAT TOOL

This brush-based tool bloats pixels outwards towards the edge of the brush tip. Excellent for creating bulging eyes in a caricature or giving the Filter>Render>Cloud command's flat 2D texture some 3D volume.

6 PUSH LEFT TOOL

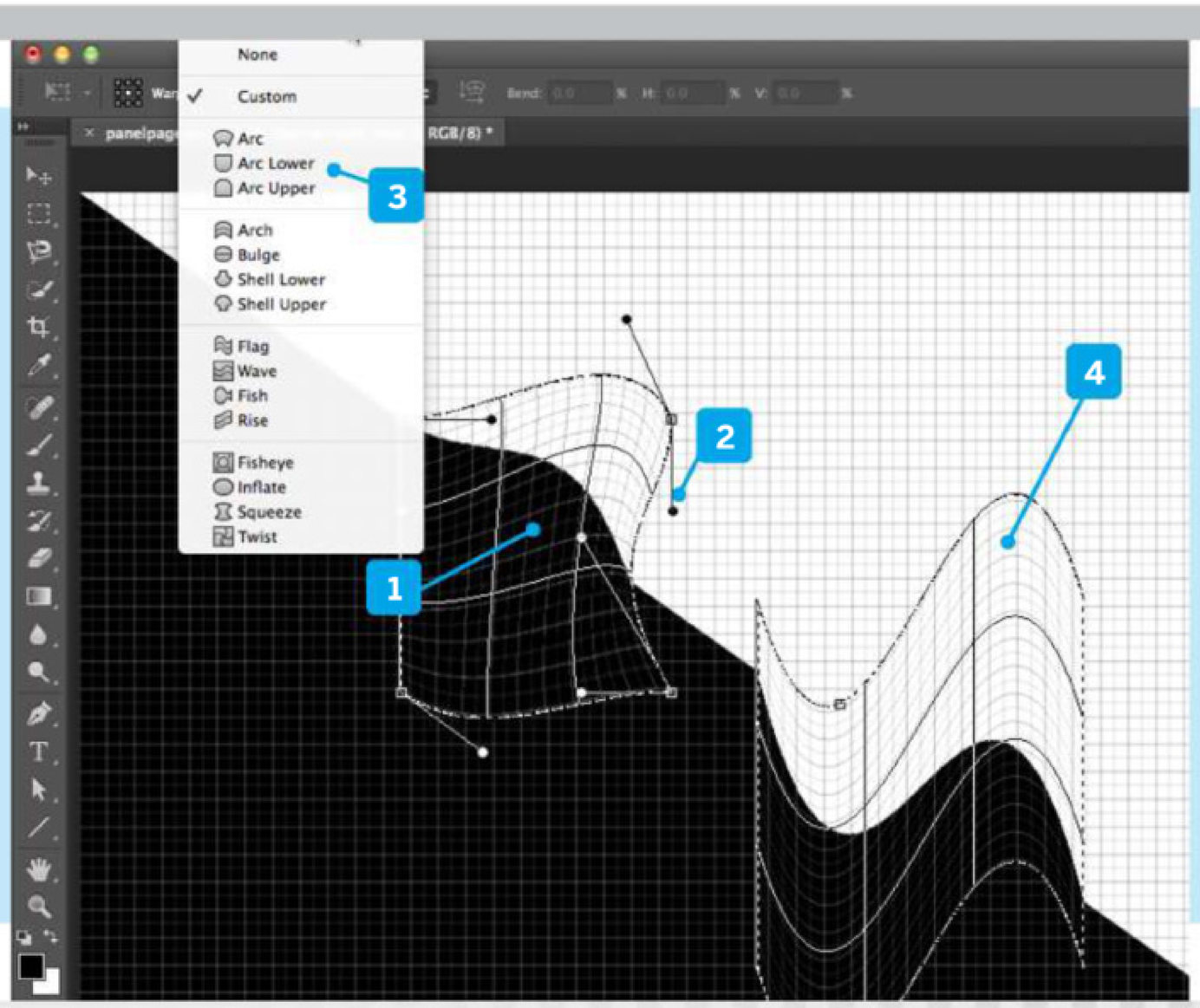
Despite its misleading name this tool pushes both ways! Drag the mouse up to push pixels to the left, or down to push them to the right. Useful for gently nudging pixels one way or another.

7 FREEZE MASK

Paint with this tool on part of a picture to prevent it from being altered by any of the other Liquify tools. The protected area will appear in red. The Thaw mask tool enables you to fine-tune which areas are frozen.

Understanding... WARP TOOL TRANSFORMING

After making a selection with any of the marquee tools, choose Edit> Transform>Warp. A nine-box grid **[1]** will appear around the selected area. Drag inside the grid to distort its contents. At each corner of the grid you'll find bezier control handles **[2]**. Dragging these will also warp the grid's contents. In the Options bar you'll find a drop-down menu packed with pixel-warping presets **[3]**. You can use these as a springboard for your creative designs, and then drag control handles to fine-tune the shape of the preset. Here's a rectangular selection that's been warped using the Flag preset.



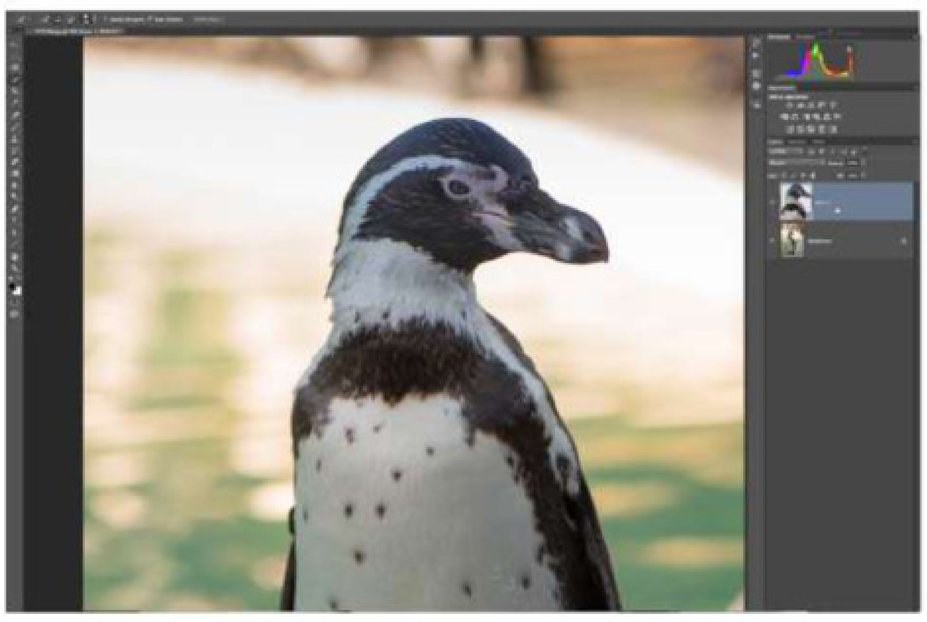
GET THE FILES HERE: http://bit.ly/PMZ34

Puppet Warp

Discover how to manipulate your subjects to fine-tune their poses using the amazing Puppet Warp tool

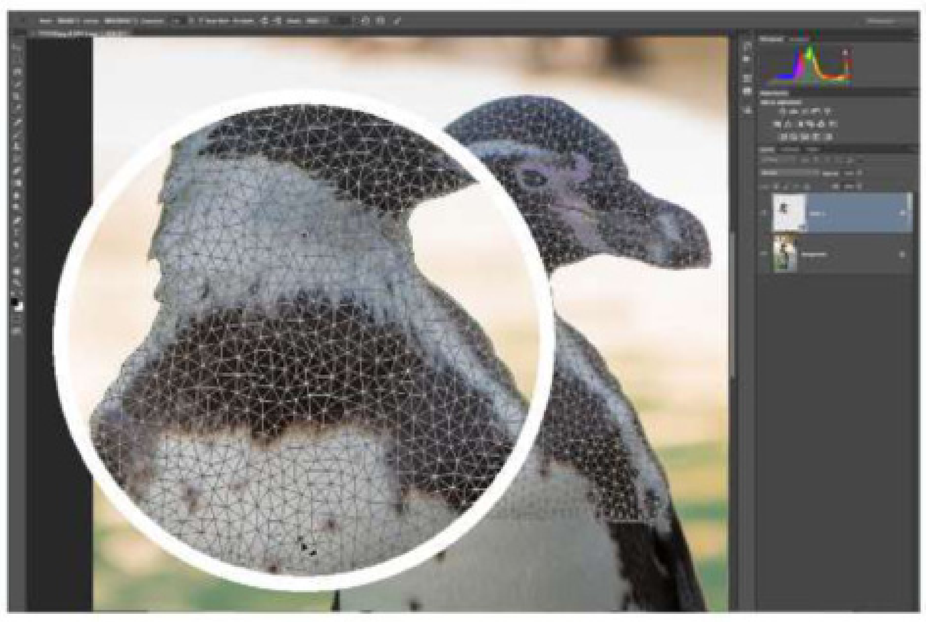
The Puppet Warp tool is a close cousin to the Edit›Transform›Warp tool that we looked at on the previous pages. However, Puppet Warp is a more powerful transformation tool so it's accessed directly from the Edit menu, while the more primitive Warp tool is relegated to a sub-menu shared with the other transformation commands.

The Warp tool's transformation grid contains only nine rectangular sections, so this limits the amount of distortion control that you get when dragging inside the grid or on its corner control handles. Puppet Warp adds a much denser mesh to a layer or selection, enabling you to create more precise warp transformations. Puppet Warp's mesh is also much easier to control. You click to place control pins anywhere on the mesh. You can then drag a pin (or several pins at the same time) to warp the image with much more precision than you'd have using the Warp tool. Follow the tutorial below to see how it works.



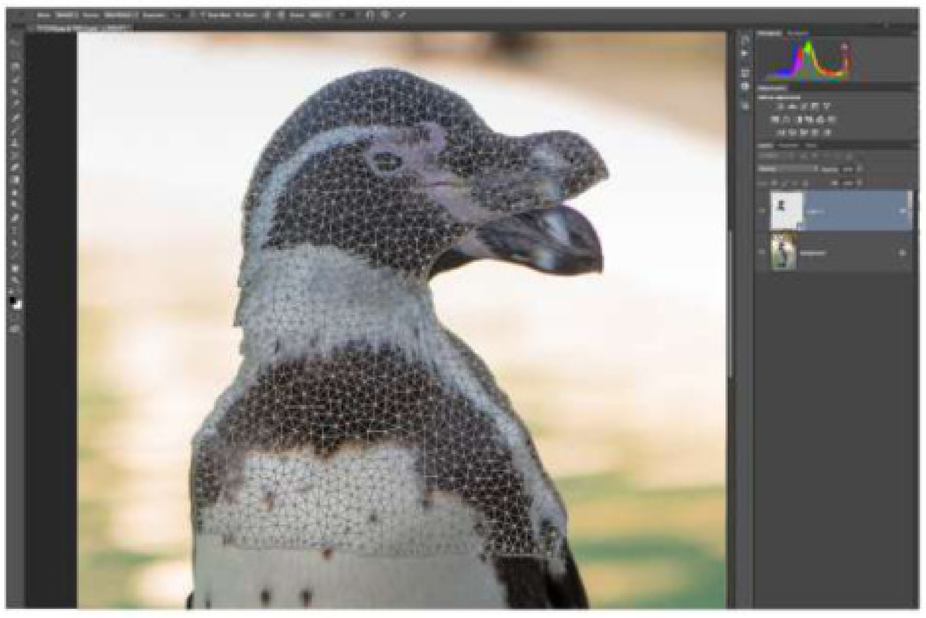
1 Select and duplicate

Open TYCC68.jpg. Grab the Quick Selection tool and paint it over the penguin's head and neck to create a selection. Press Cmd/Ctrl+J to float the selection onto a new layer. Choose Filter›Convert for Smart Filter. This will enable you to fine-tune the Puppet Warp's mesh if desired.



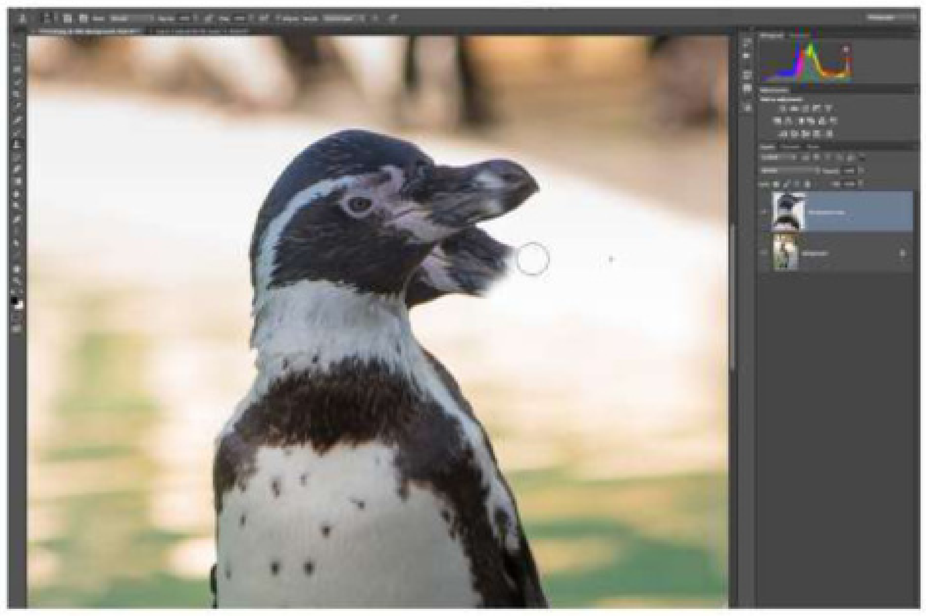
2 Add control pins

Go to Edit›Puppet Warp. A mesh will appear over the selected and copied layer's content. In the Options bar, keep Mode on Normal to help preserve the proportions. Set Density to More Points. Place a control pin on the tip of the beak, one on the neck, and a third at the base of the mesh.



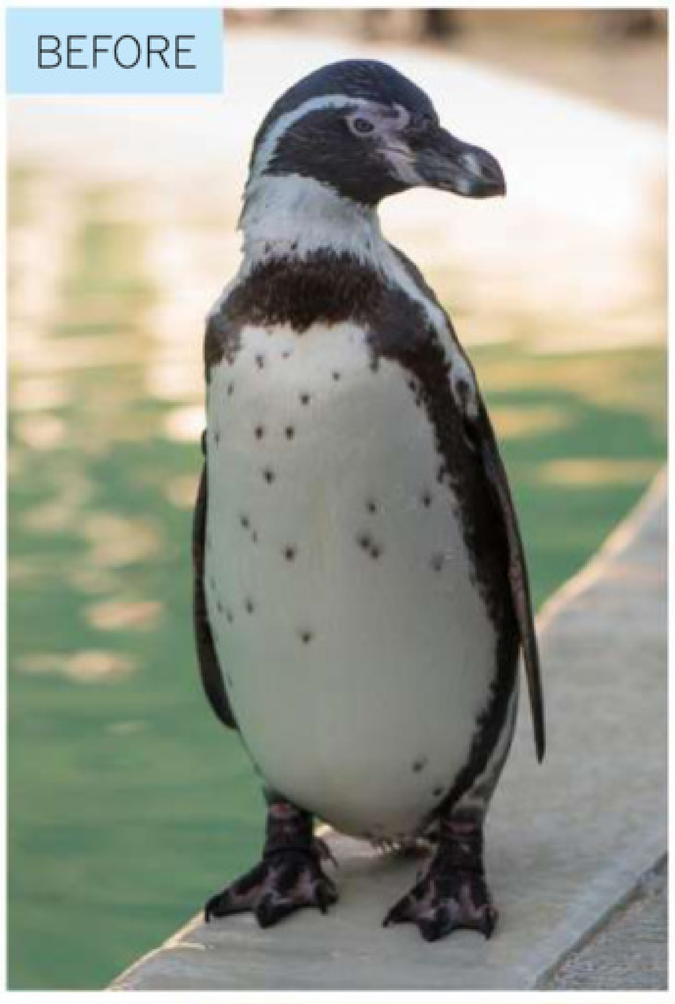
3 Move the pins

Drag the beak pin upwards to make the bird look up. The neck will rotate around the immobile neck pin. The lower pin will stop the rest of the layer from moving. You can add more pins to fine-tune the penguin or right click and choose Delete Pin from the context-sensitive pop-up menu.



4 Hide the head

Once you've moved the head into a new position, you'll see some of the bird's original head from the layer below. To hide this section, grab the Clone Stamp tool. Click the Background layer. Alt-click to sample a clean path of background and paint it over the unwanted extra beak. ■


BEFORE

GET THE FILES HERE: http://bit.ly/PMZ34

Correct ugly lens distortion

Use Photoshop filters to counteract a range of lens-related distortions

When you shoot with a wide-angle lens you may notice that the horizontal and vertical lines in the scene appear curved. This is referred to as geometric distortion. These curved lines can detract from the authenticity of an image. Distorted lines that bulge outwards are said to be suffering from barrel distortion, while lines that curve inwards are afflicted by pincushion distortion. Our starting image suffers from a little barrel distortion, which causes the roof's horizontal lines to curve slightly. Due to the building's elevated position and the low camera angle, the photo also suffers from perspective distortion (where the building's vertical lines converge inwards towards the top of the frame).

Photoshop's Lens Correction filter is designed to correct geometric and perspective distortion. You can summon a lens profile that tells Photoshop about the lens used to take the shot. It can then automatically warp the image to counteract geometric distortion. The Lens Correction filter also provides manual sliders that enable you to counteract perspective distortion and create straighter verticals.

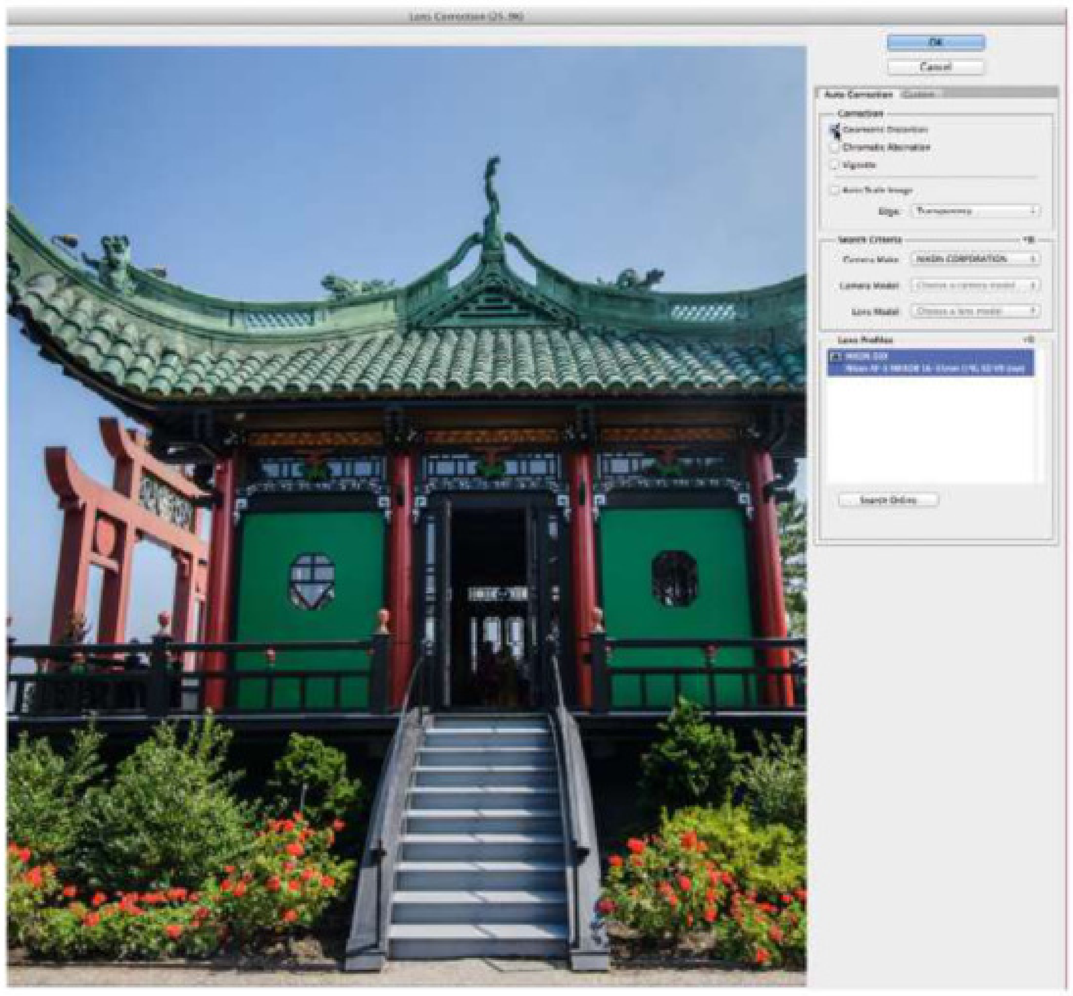
The Lens Correction filter works well, but it may end up dramatically cropping the corrected image and changing its composition in a detrimental way. The new Adaptive Wide Angle filter enables you to manually select distorted lines and correct them without changing other parts of the photo. This helps you target and correct specific cases of geometric distortion or perspective distortion without cropping too many edge details.

We'll kick off by showing you how to use the Lens Correction filter to counteract distortion, and then demonstrate how the powerful Adaptive Wide Angle filter performs selective distortion corrections much more effectively.



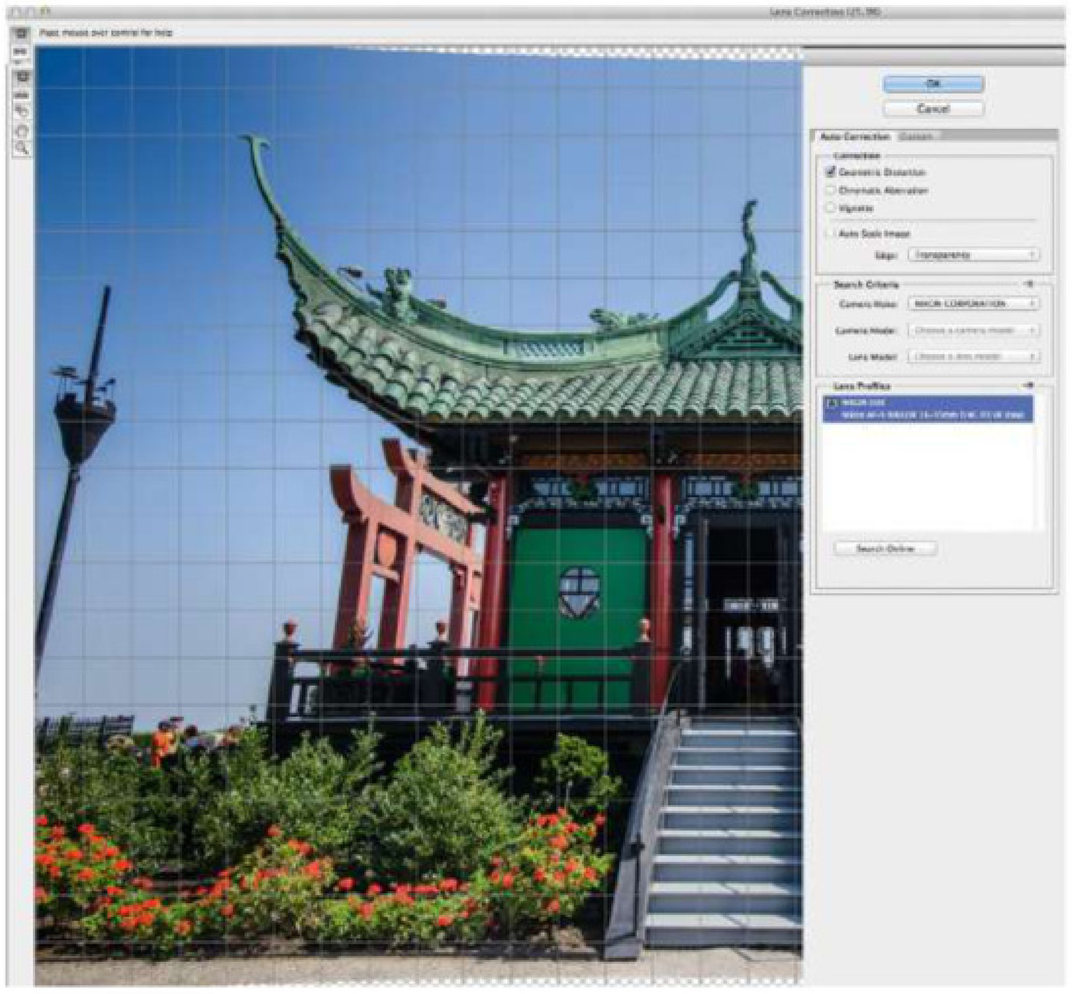






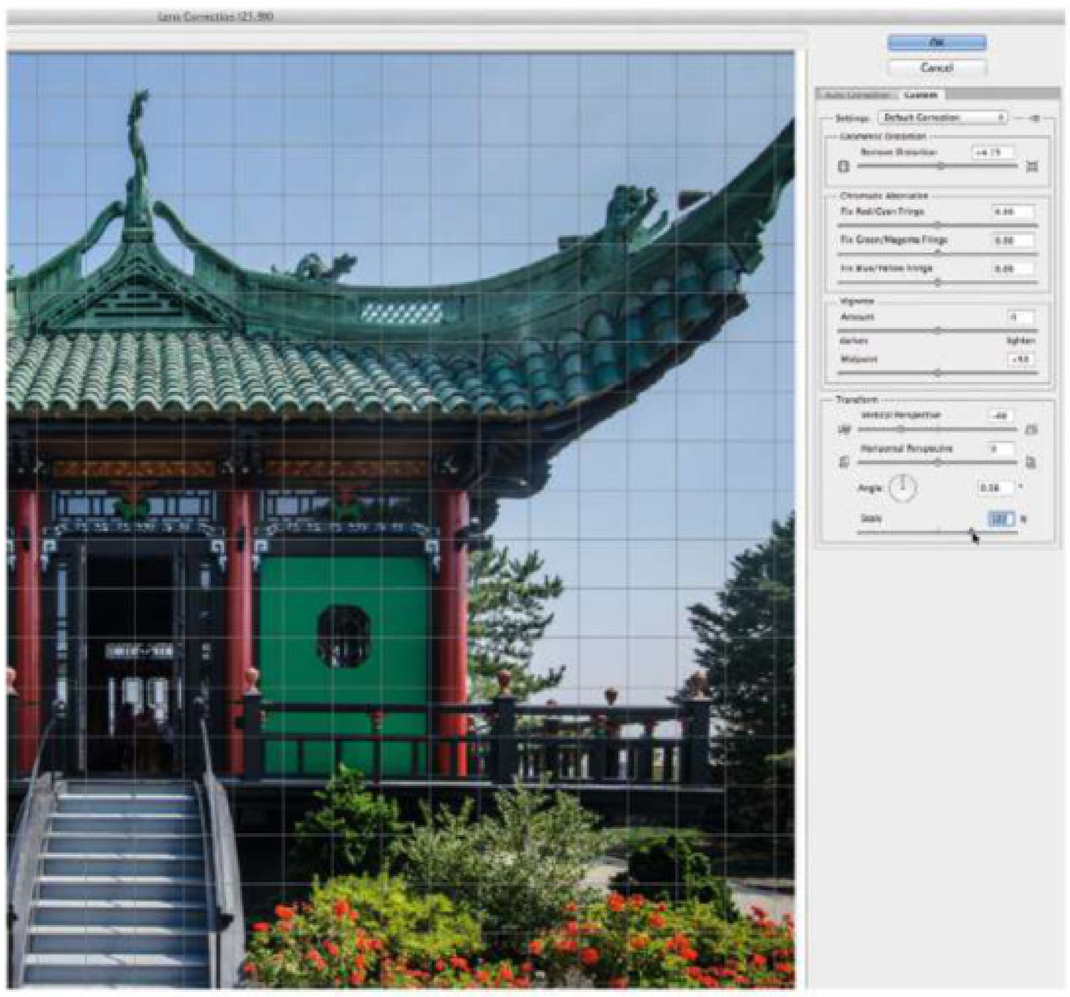
1 Open the image

Go to File›Open and browse to the starting image. Choose Filter›Lens Correction and click the Auto Correction tab. Photoshop will read the image's metadata and provide an appropriate lens profile that understands how the lens has distorted the scene. Tick the Geometric Distortion box to turn the profile on. This counteracts the slight barrel distortion in the horizontal lines of the image. Clear Auto Scale Image to preserve edge detail.



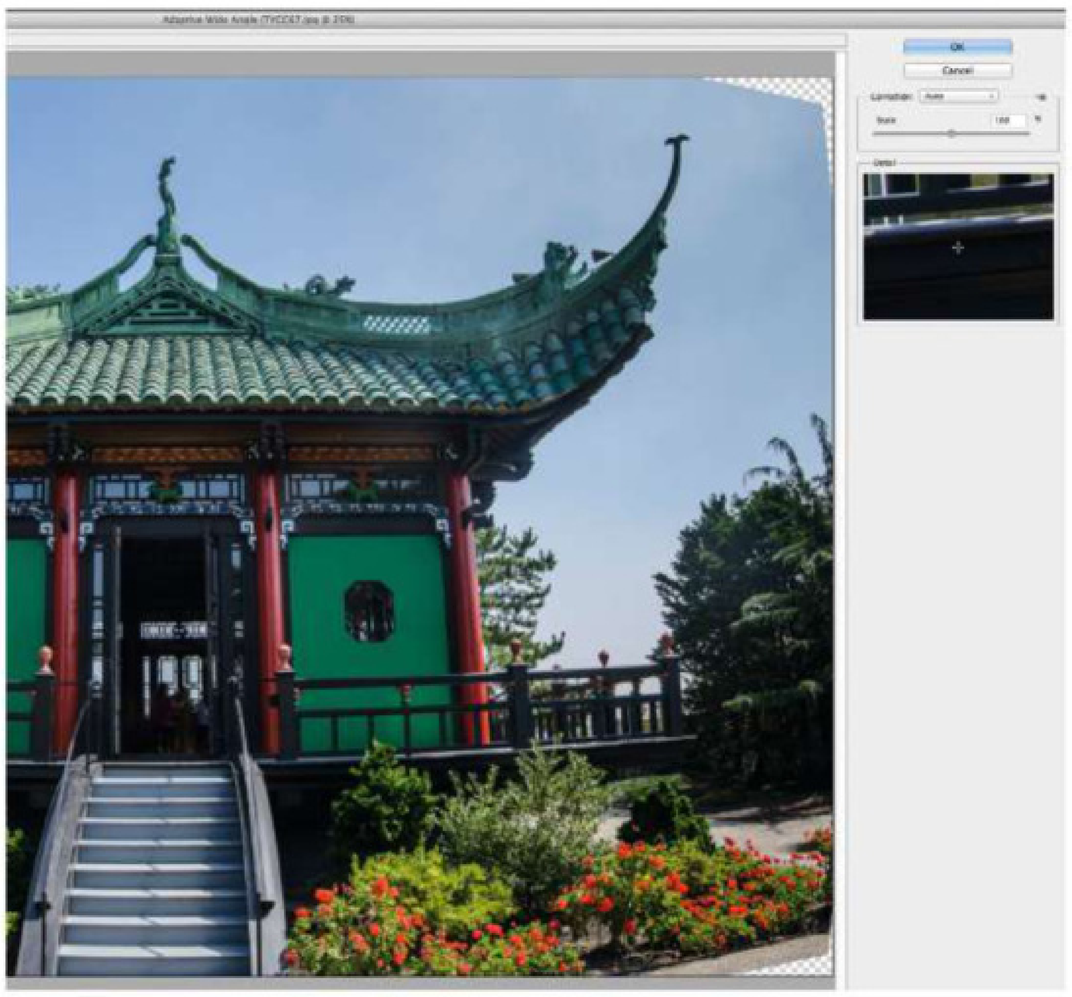
2 Remove the barrel distortion

Grab the Move Alignment Grid tool. Drag the grid so that its horizontal lines overlap the lower edge of the roof. The roof is a little curved and tilts down to the left. Grab the Straighten tool and drag it to follow the tilted horizontal line. The image will rotate to make the line run parallel with the bottom edge of the frame. Click the Remove Distortion tool and drag downwards in the image to counteract the slight barrel distortion.



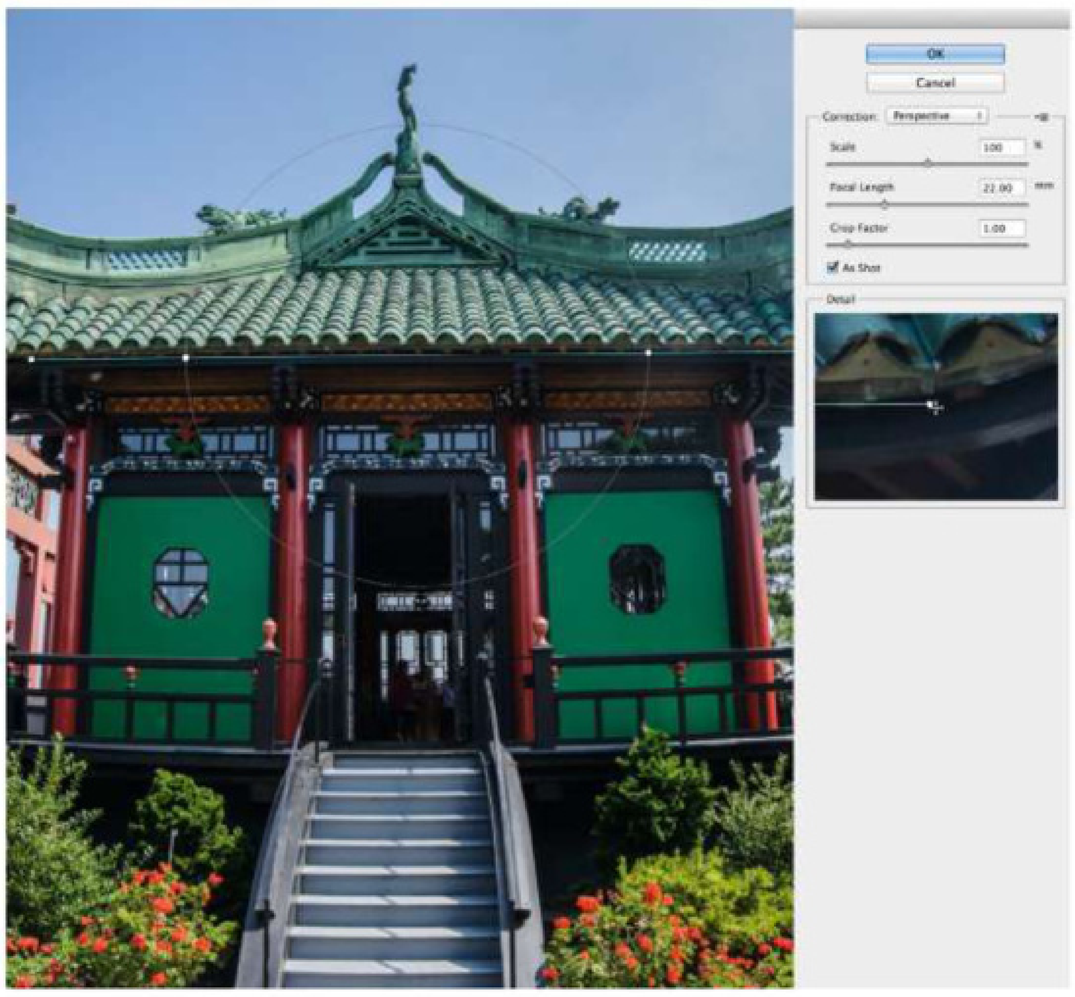
3 Remove the perspective distortion

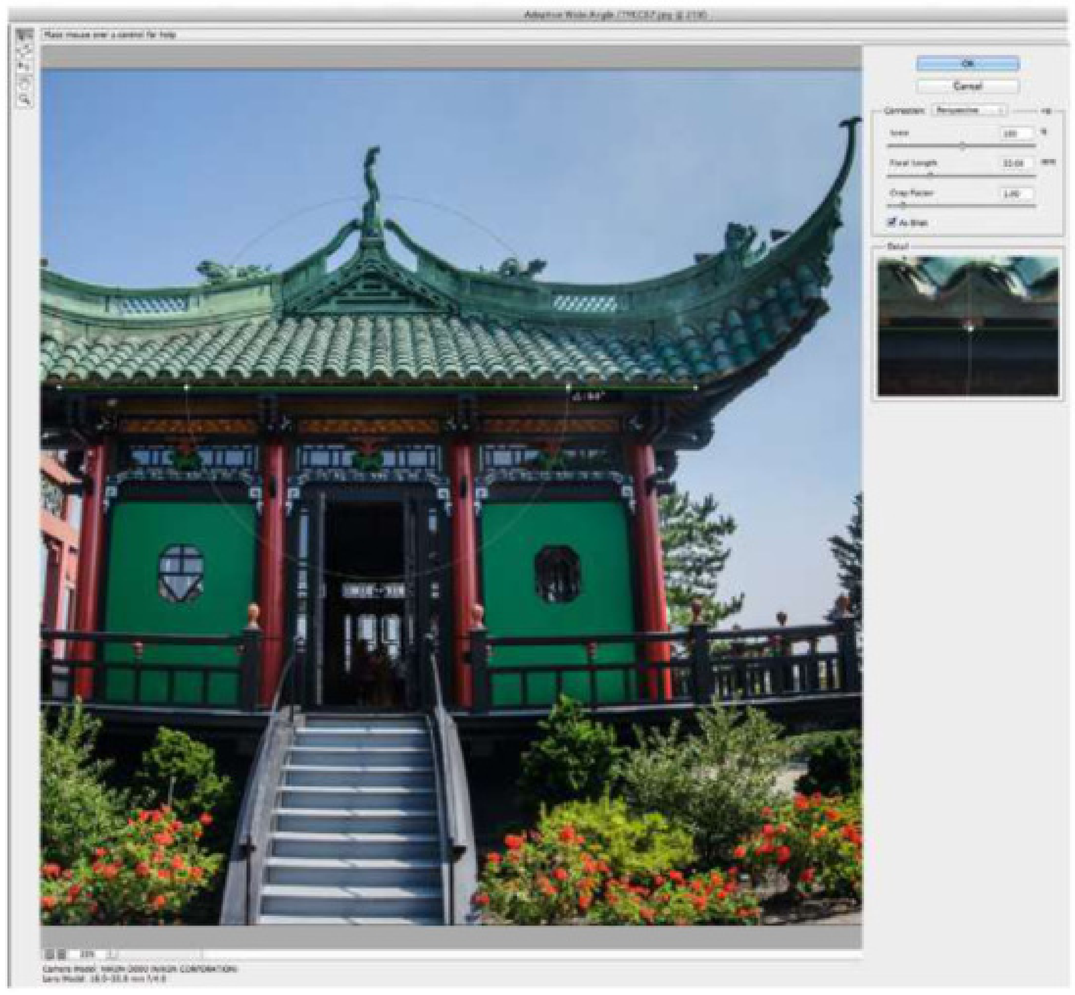
The barrelling is less apparent and the tilted horizons are straight, but the vertical lines still converge inwards towards the top of the frame. Click the Custom tab. In the Transform section, drag the Vertical perspective slider left until the vertical lines run parallel with the frame edge and the grid. This distortion causes more transparent edges to appear. You'll need to drag Scale to around 122% to remove these transparent edges.



4 Adaptive Wide Angle

You could click OK to apply the corrections to the image, but the edited image has been dramatically cropped due to the perspective correction. Interesting architectural details such as the edge of the roof will be lost. To correct perspective and geometric distortion while preserving more of the original composition of the image, click Cancel. Choose Filter›Adaptive Wide Angle instead. This filter's Auto option will try to counteract the lens distortion.



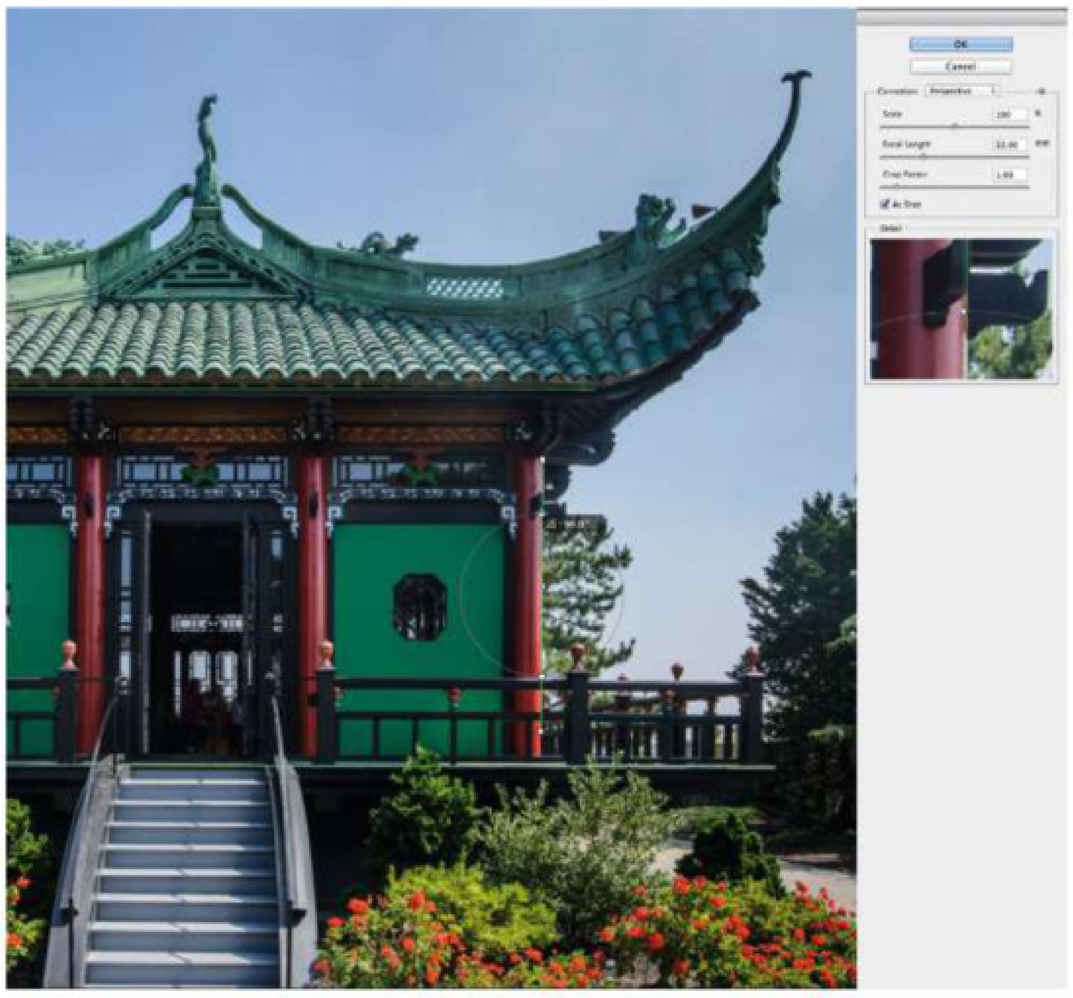


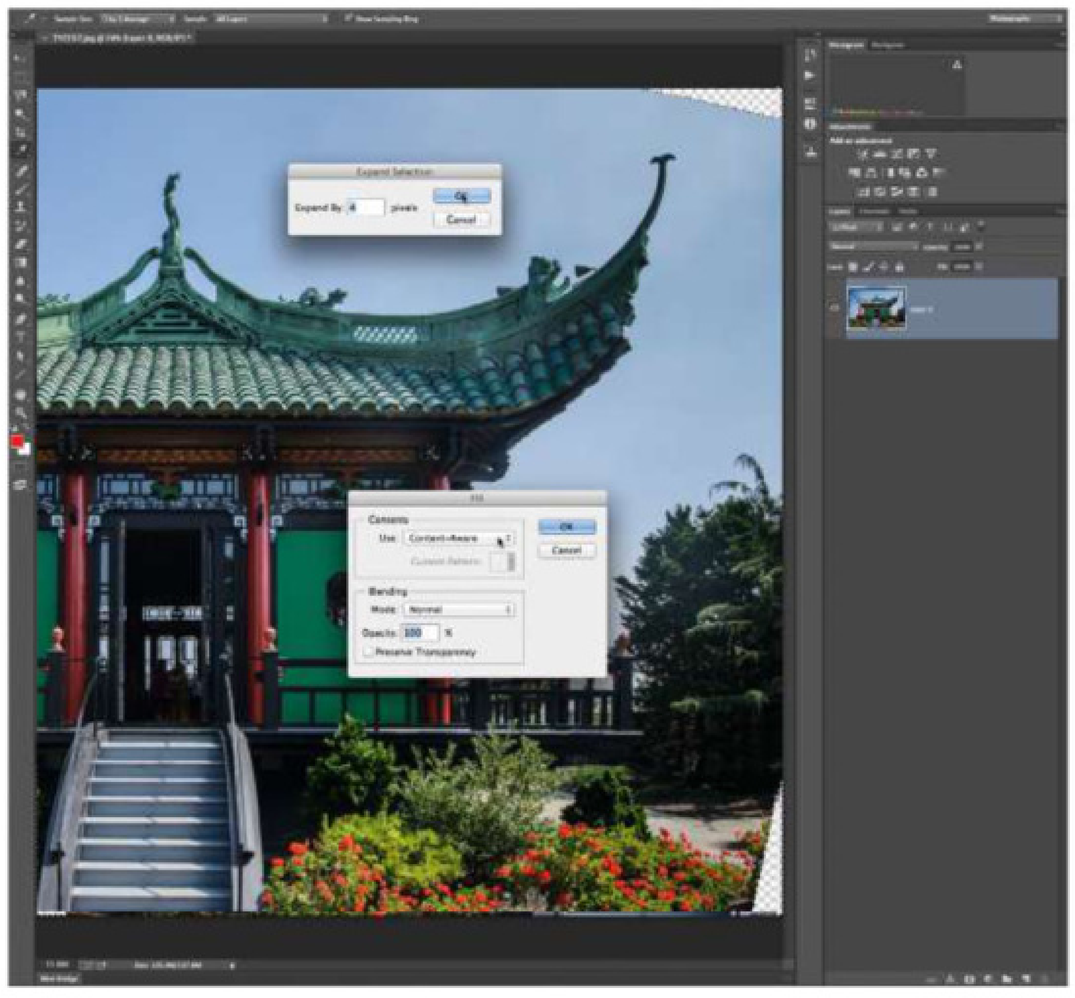
5 Remove selective barrel distortion

Set the drop-down menu to Perspective. The Focal Length will change to 22mm, which was the setting used to capture the photo. To identify which lines need straightening, click the Constraint tool. Drag a line along the edge of the roof. The line will bend to follow the geometric lens distortion in the image. Let go of the mouse and the line will straighten. This counteracts the barrel distortion of the roof.

6 Straighten the horizontals

The horizontal constraint line features two small white rotation handles that are located where the horizontal line bisects the circle overlay. Click a handle to see the angle of the horizontal line's tilt. It will read around −0.6 degrees. Drag the handle until the angle reads 0 degrees. The cyan constraint line will turn green, indicating that the pixels attached to this line are now perfectly straight and horizontal.





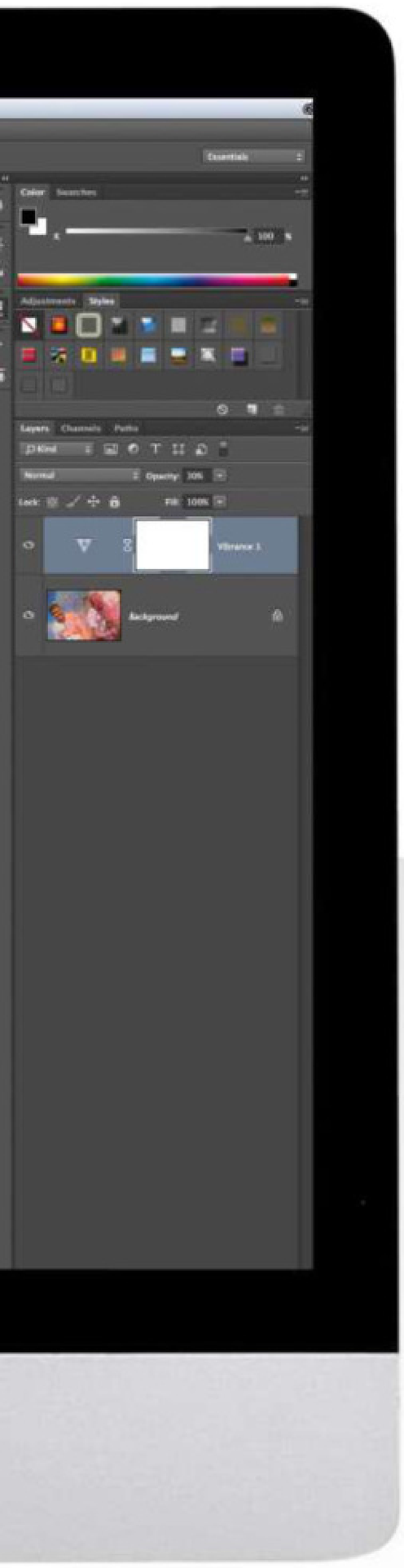
7 Straighten the verticals

Drag a longer constraint line along the base of the building. This curved section will then become straight. Rotate this line to counteract the slight horizontal tilt. Draw a couple of vertical constraints to straighten the converging verticals. Rotate these constraints so that they are at 90 degrees. The key architectural features in the image now have less geometric distortion and less perspective distortion. Click OK.

8 Fill the transparent edges

To fill the transparent edges created by the filter, grab the Magic Wand tool. Hold down Shift and click to select each of the four transparent edges. Go to Select›Modify›Expand. Choose a value of 4 pixels. Choose Edit›Fill›Content-Aware. Click OK. Photoshop will fill the transparent edges with appropriate pixels to extend the image into these empty areas. We've now corrected the distortions without dramatically altering the composition. ■


Photoshop File Edit Image Layer Type Select Filter 3D View Window Help
Adobe Photoshop CC
Properties
Vibrance
Vibrance:
Saturation:



Advanced features

Discover how to enhance your creative projects with paint effects, custom text captions, 3D models and more

146 Introducing Photoshop's creative brush tips
Enhance your creative projects with natural-looking brush strokes that mimic real-world brushes, pencils and charcoal

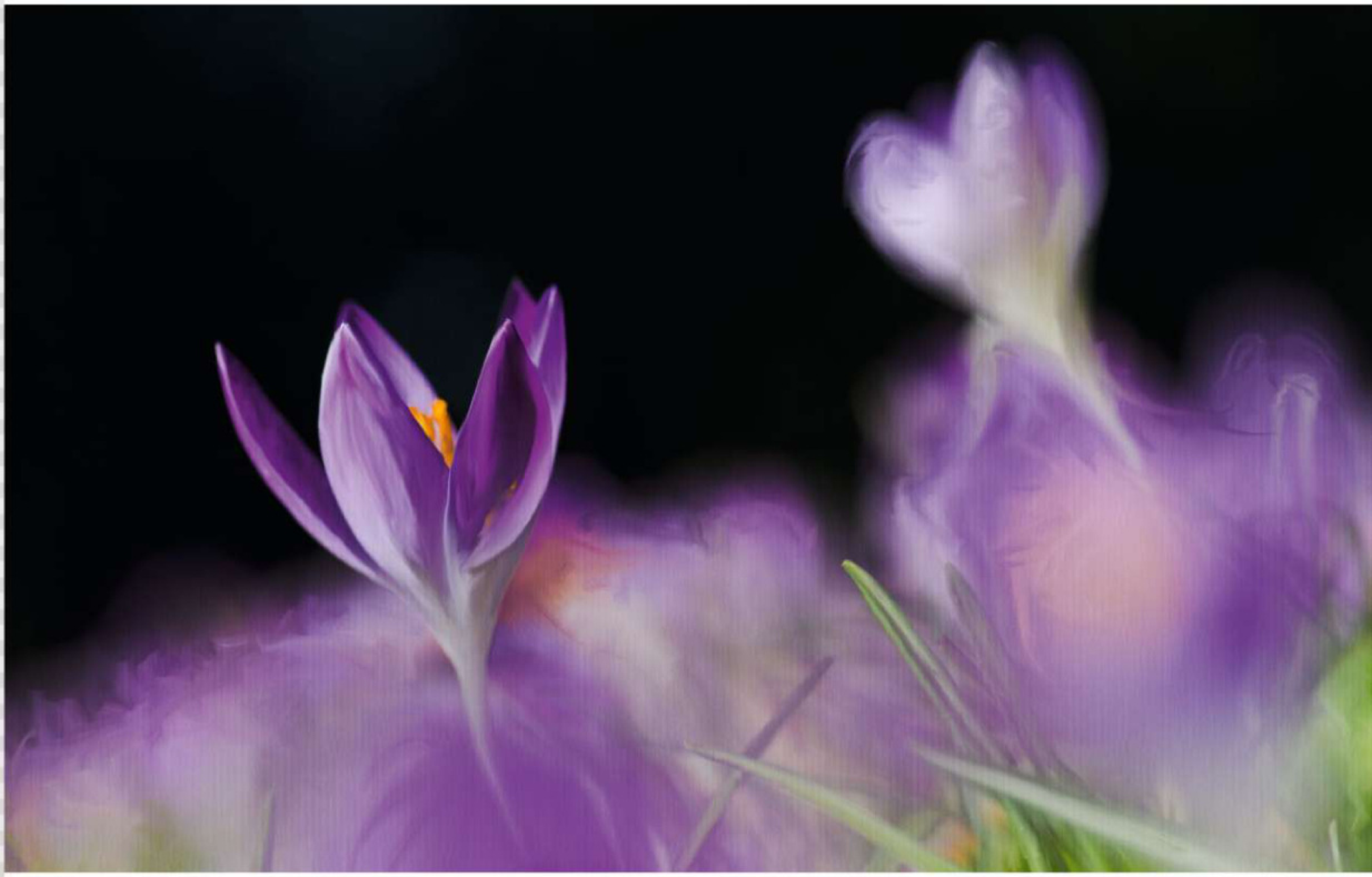
150 Create elaborate titles and captions
Add customisable text to your creative projects using Photoshop's powerful typography tools

154 Introducing the 3D workspace
Discover how to create your own unique designs with Photoshop CC's versatile 3D modelling tools and panels

158 Introducing the Motion workspace
Discover how Photoshop CC enables you to enhance video clips with adjustment layers, text effects and more

162 Prepare your photos for print
Produce perfect prints of your photographs by optimising Photoshop's colour space for printing

GET THE FILES HERE: http://bit.ly/PMZ34



Explore Photoshop's creative brush tips

Enhance your creative projects with natural-looking brush strokes that mimic real-world brushes, pencils, charcoal and other natural media

Many of Photoshop's tools are brush-based. By changing the size, softness and opacity of a brush-based tool, you can fine-tune the way it alters the pixels in a photograph. If you attach a stylus to your PC then you can use changes in pressure to create lighter or darker strokes and work with even more precision.

You can also use brushes to mimic natural media. Select the Brush tool, then click the Brush Preset picker and scroll down to find more creative shapes such as Chalk, which produces a grainy texture. You'll also find creative brush tips such as Leaves, which scatters random leaf shapes. By clicking the Brush panel icon you can modify the way a preset shape behaves, such as making the leaves scatter in less dense clumps.

To make Photoshop's brush tips behave more like their real-world counterparts, the Brush panel and Brush Preset picker offer a range of bristle-brush tips. These deform as you paint, and leave bristle-like strokes on the image. By combining a bristle-brush tip with a tool such as the Mixer brush, you can turn a photo into a painting, as you'll see in the tutorial on the following pages. But first, we'll demonstrate how the Brush panel changes a bristle-brush tip's attributes, so you can produce realistic-looking strokes.

Photoshop Anatomy The Brush panel

Change the way bristle-brush tips behave by editing their attributes

1 BRUSH PANEL

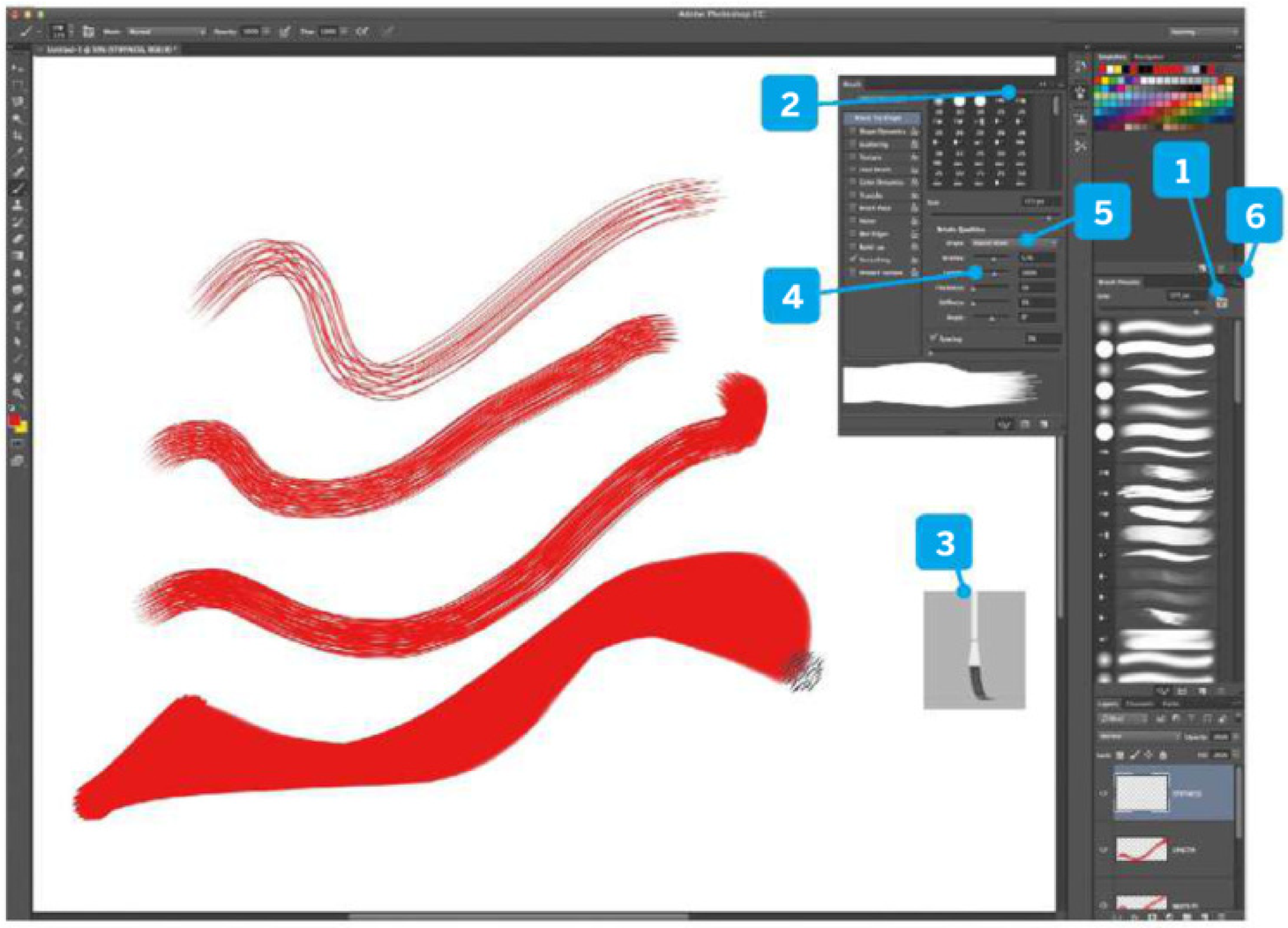
When using the Painting workspace you can summon the Brush panel by clicking this icon. Alternatively, you can click the same icon in the Options bar when you use any brush-based tool.

2 BRISTLE BRUSH

The four strokes in our annotation were drawn using the same Round Blunt bristle-brush tip. We modified the tip's attributes in the Brush panel to create this diverse range of strokes.

3 LIVE TIP PREVIEW

Click the eye and brush icon at the bottom of the Brush panel to summon this handy tool. As you modify the bristles, the preview will change to show the new length and thickness. The preview will also deform as you paint so you can see how loose or stiff it is.



4 BRISTLE QUALITIES

Drag the sliders in this section to change the style of stroke produced by the currently active bristle brush. To create the stroke at the bottom of the screen, we reduced the Stiffness of the bristles.

5 CHANGE TIPS

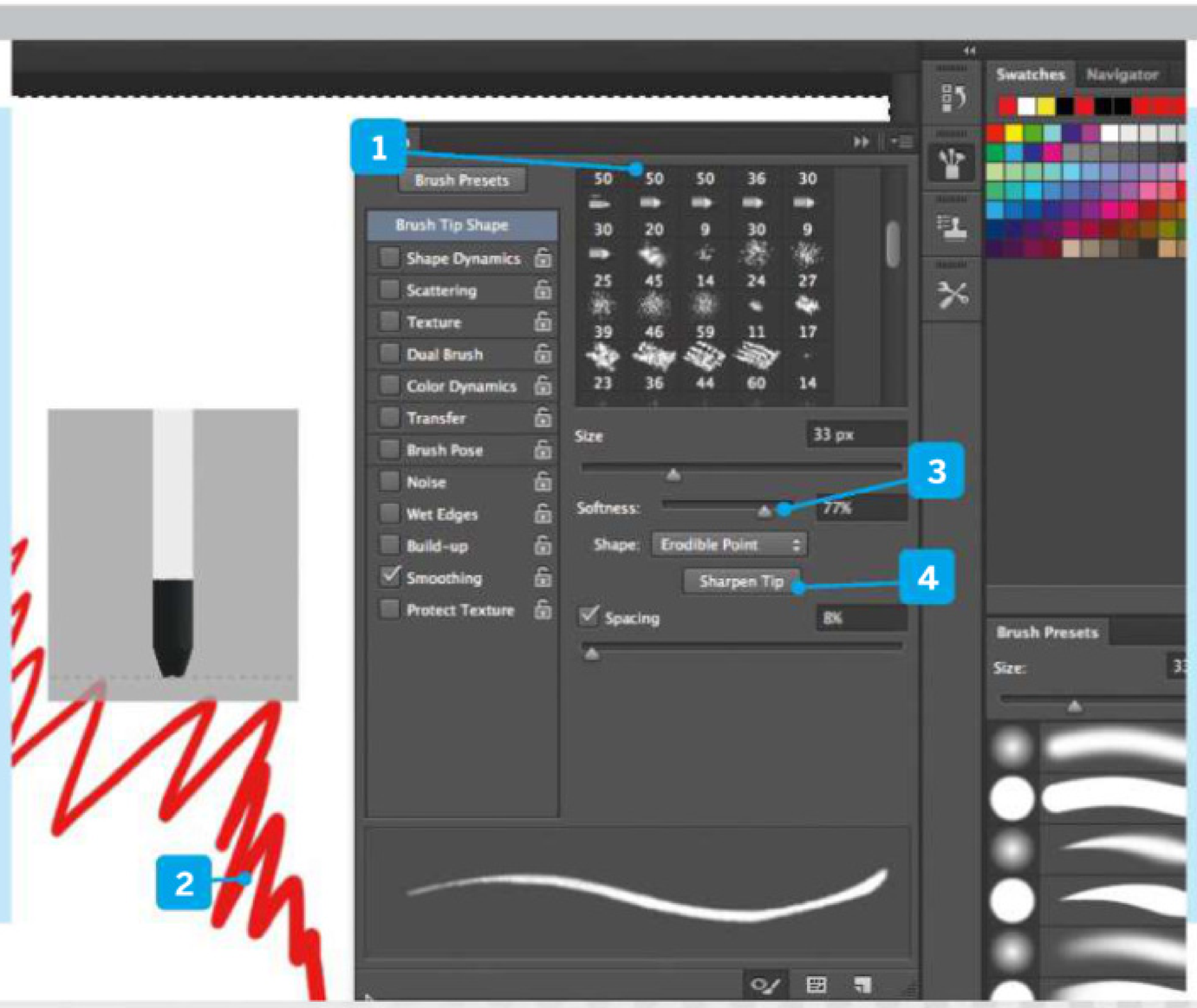
Instead of clicking the bristle-brush tip icons in the Brush Preset picker or the Brush panel, use this drop-down menu to change the shape of the brush tip.

6 MORE TIPS

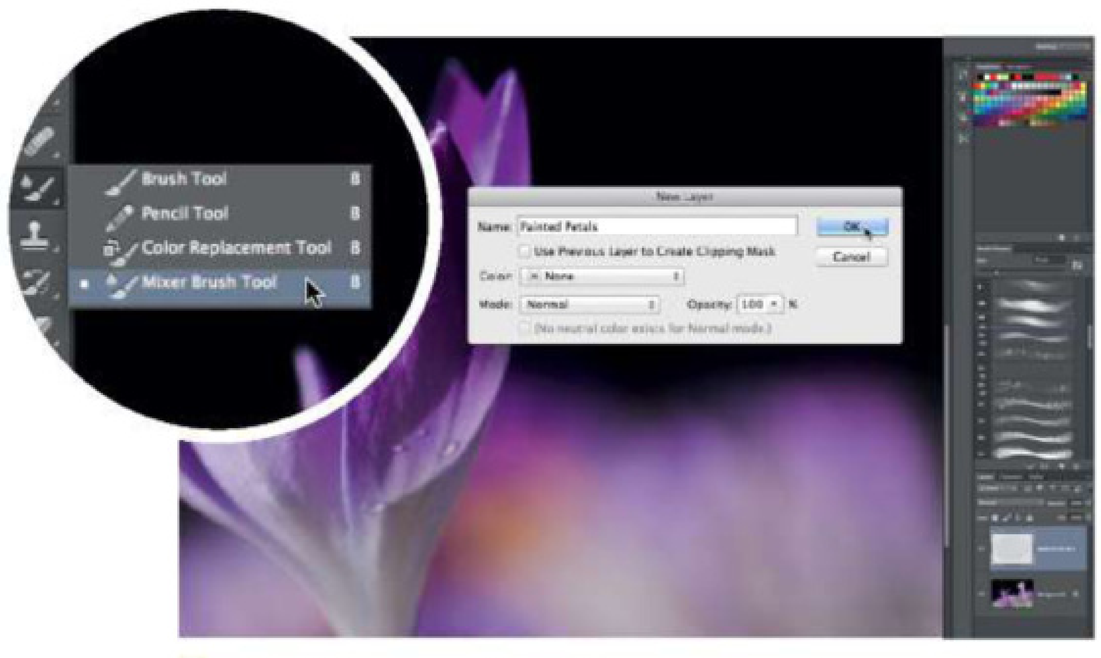
Click the Brush Preset picker's fly-out icon to load in new sets of bristle-brush tips that mimic a wide range of natural media. The sets include Wet Media brushes, which are great for watercolour projects.

Understanding... ERODIBLE BRUSH TIPS

As well as bristle brushes, which deform as you paint, you can mimic media such as charcoal sticks courtesy of erodible tips. These tips are indicated by a pencil icon **[1]**. Erodible tips wear out as you draw, creating more realistic and organic-looking strokes **[2]**. To make a tip wear out more quickly, increase the value of the Softness slider **[3]**. The stroke will get thicker as the tip erodes (and the Live Tip Preview will show the tip becoming more blunt). For a sharper tip click the sharpener button here **[4]**. There's a range of erodible tips, such as Erodible Round and Erodible Square. Choose the one that suits your needs.

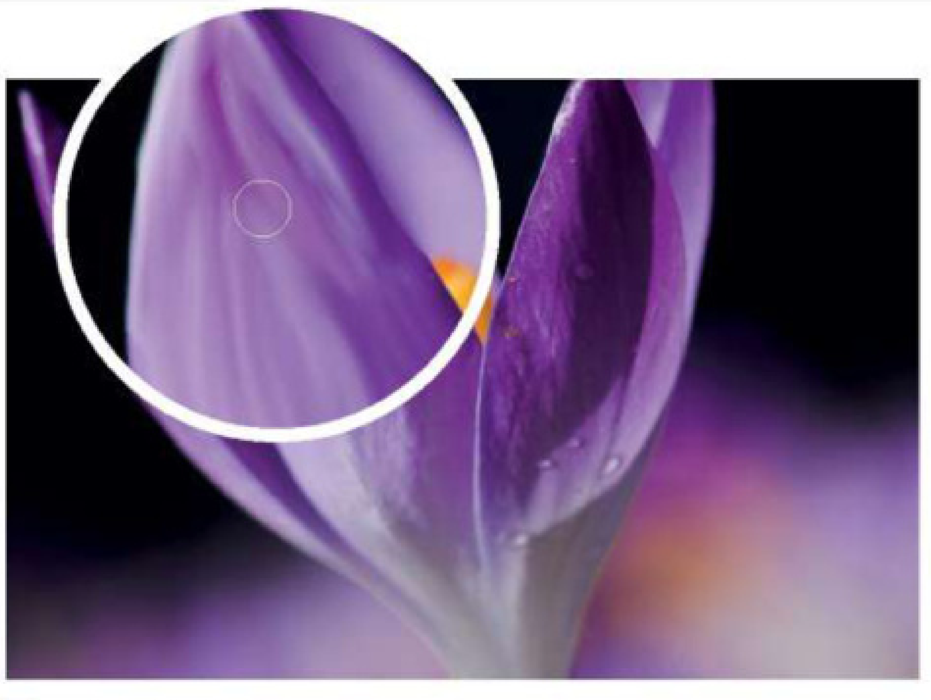


GET THE FILES HERE: http://bit.ly/PMZ34



1 Choose the Mixer brush

Open TYCC08.jpg. Go to Window›Workspace›Painting. Go to Layer›New›Layer. Name the layer Painted Petals. Hold the mouse button down over the Brush tool's compartment in the Tools panel and choose the Mixer brush. Choose the Round Watercolor erodible tip from the Presets.



2 Paint and smear

Set the size to 90 pixels. In the Options bar, choose Very Wet, Heavy Mix. Tick Sample All Layers. Click the transparent Painted Petals layer. Paint strokes that follow the flower's curves. The Mixer brush samples colours from the image below and turns them into wet smears of paint.



3 Check your progress

Click the Background layer's eye icon to hide it. The Mixer brush's paint-like strokes create a simplified version of the petals, while preserving their colour and tone. Make the Background layer visible once more and continue using lots of short strokes to paint in the rest of the petals.



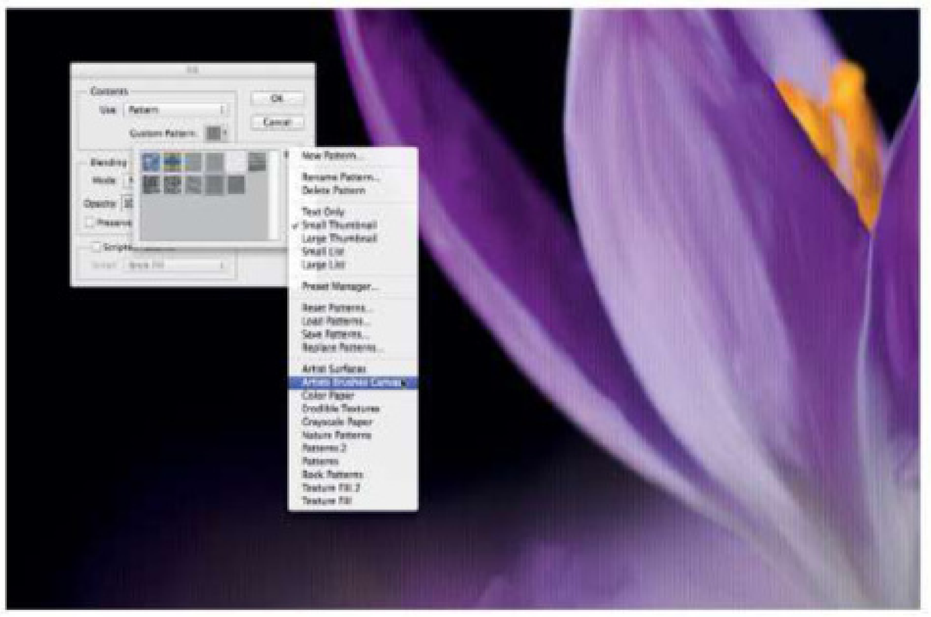
4 Add realistic mistakes

When you mix paint in the real world, colours often pollute other colours, especially if you don't clean your brush regularly. To add authentic mixes of different colours, untick the Clean the brush icon in the Options bar. Now paint on the yellow stamen and then paint on the purple plant.



5 Impressionistic effects

Create a new transparent layer. From the Brush Presets picker, choose the Flat Point Medium Stiff bristle-brush tip. Set the size to 50. Paint over the leaves to render them as rough-and-ready paint strokes. Create a new transparent layer and go to Edit›Fill.



6 Add a canvas texture

Set the Contents menu to Pattern. Click the Custom Pattern window. Click the gear icon in the thumbnail window and choose Artists Brushes Canvas. Click Append. Choose Yankee Canvas. Click OK. Set the pattern layer's Blend mode to Overlay and reduce its opacity to 13%. ■

PRACTICAL Photoshop®

www.practicalphotoshopmag.com

SENSATIONAL IMAGES MADE SIMPLE!

OUT NOW FOR iPAD & iPHONE!



Learn Photoshop now with our expert tutorials, free video lessons and inspirational galleries

UK: http://goo.gl/dDvsS **US:** http://goo.gl/Wn0qs

Available on the App Store

GET THE FILES HERE: http://bit.ly/PMZ34



Create elaborate titles and captions

Add customisable text to enrich your creative projects using Photoshop's powerful typography tools

The Horizontal Type tool and its Tool panel compartment cousins enable you to enrich your creative projects in many ways, such as providing posters or book covers with eye-catching typography, or turning text into a key component of an illustration by inserting a photo into the fonts.

At first glance, the Type tool works in a similar way to word-processing packages. As you move the mouse onto a Photoshop document a text cursor will appear. Click to place the cursor on a particular spot and start typing on your keyboard to add text to the document as a new layer. You can treat this text layer like any other Photoshop layer, and use the Move tool to fine-tune the position of the text in the design.

As with word-processing packages, you can change text in Photoshop in a variety of ways. Double click to select a word, or drag to select a few letters. Like shapes produced by the Pen or Custom Shape tools, text is created mathematically as vector shapes, so you can increase the size without making the edges fuzzy. You can distort text too using the Create warped text option, and edit the size, font or spelling of the warped text if need be. However, to apply other filters and commands you'll need to convert it to a raster layer.

Photoshop Anatomy The Type tools

Get to know the key features of Photoshop's Type tools

1 TOOL COMPARTMENT

The Horizontal and Vertical Type tools functions as their names suggest. Hold down Shift and tap T to cycle through the four versions of the Type tool in this compartment.

2 MARVELLOUS MASKS

The mask versions of the Horizontal and Vertical Type tools create text-shaped selection marquees as you type. You can then paste a copied photo into the layer to add texture to your typography.

3 FONT FAMILY

Click here to open the drop-down font family menu and then scroll through the dozens of options to find a font to suit your needs. If the text layer is highlighted, use the up or down arrow keys to change the fonts.

4 ALIGNMENT

If you press Enter while typing, you make a new line. If you have a few lines of text selected, click these options to align the text to the left, centre or right.



5 CHARACTER PANEL

When using the Typography workspace, you can get easier access to the powerful text-tweaking Character panel, with its ability to change properties such as the text height, width and the gaps between the letters.

6 LAYER STYLES

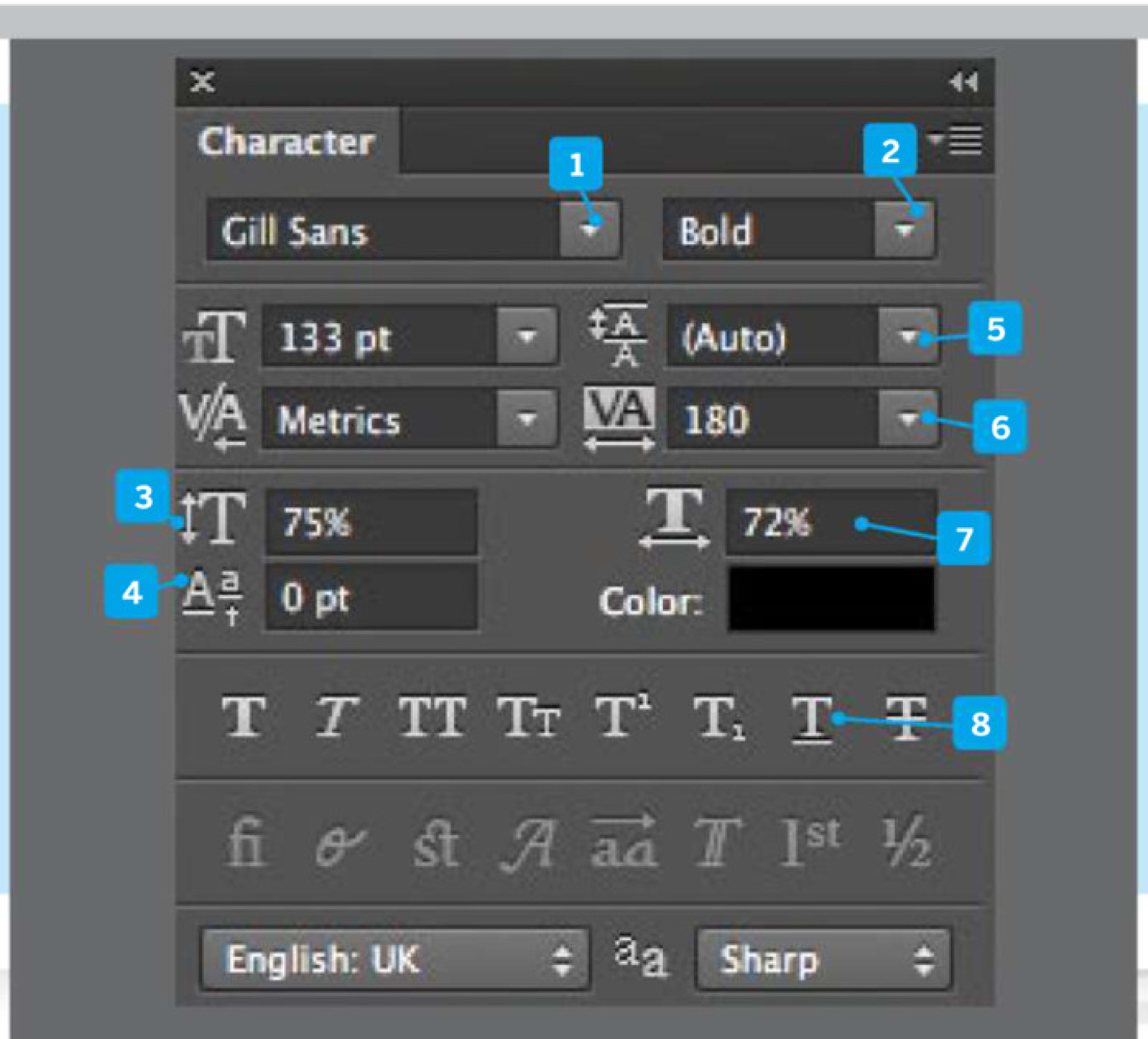
You can make 2D text look like solid 3D shapes by adding a Bevel and Emboss Layer Style to the layer. This helped our design's text look like it was carved from marble.

7 CREATE WARPED TEXT

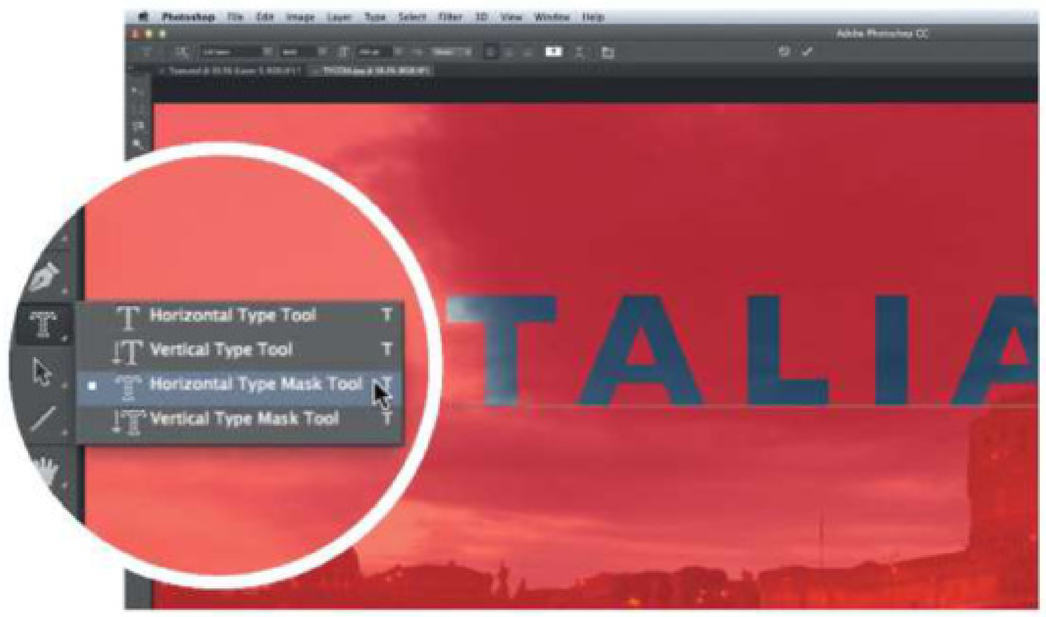
This option provides quick ways to warp your text in creative ways. We used the Wave option to help the text follow the contours of the buildings in the background image. Warped text remains editable.

Understanding... THE CHARACTER PANEL

Choose a font for your text by clicking here **[1].** You can modify many fonts to turn them bold or italic here **[2]**. Increase the value in this field **[3]** to change the selected text's vertical scale. By adjusting the baseline shift **[4]** you can raise the text up or down. By adjusting the leading **[5]** you can narrow the gap between lines of text (or make them overlap). Adjust Tracking **[6]** to widen the gaps between the letters. Increase Horizontal scale **[7]** so that shorter words on one line will stretch and match the width of longer words on another. Click these icons **[8]** to turn lower case characters into capitals or underline text, for example.



GET THE FILES HERE: http://bit.ly/PMZ34



1 Type some text

Open TYCC84.jpg. Go to Window›Workspace› Typography. Choose the Horizontal Type mask tool from the Tools panel. In the Options bar, click the font family menu and choose Gill Sans. Set the style to Bold. Type a Size value of 200 points. Hold down Shift and type ITALIA.



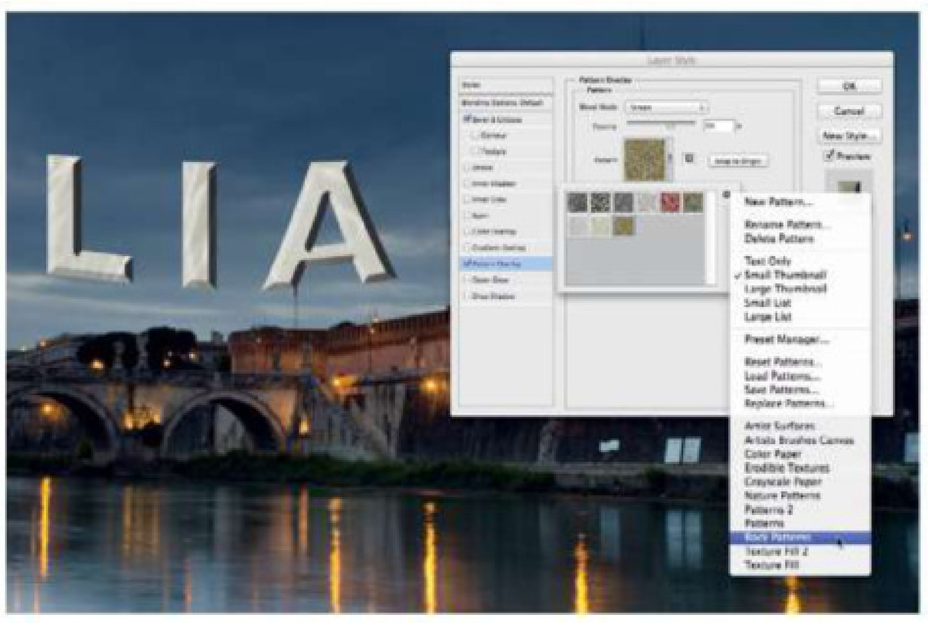
2 Warp the text

Move the cursor away from the text until it changes to an arrow. Drag the text near to the skyline. Right click and choose Warp Text. Set the Style menu to Wave. Tick the Horizontal button. Drag the Bend slider left to −34 so that the text warps to flow above the buildings. Click OK to apply.



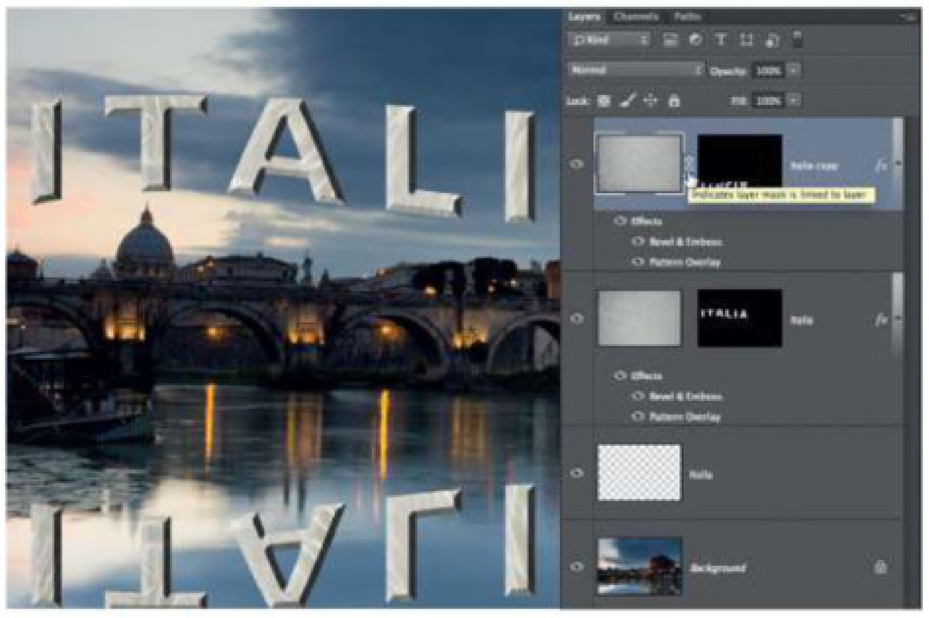
3 Add a texture

Choose Layer›New›Layer. Label the layer 'Italia'. Click OK. Open TYCC83.jpg. Choose Select›All and then Edit›Copy. Go back to the TYCC84.jpg document and choose Edit›Paste Special›Paste Into. Drag inside the text with the Move tool to reveal the ripples from the copied image.



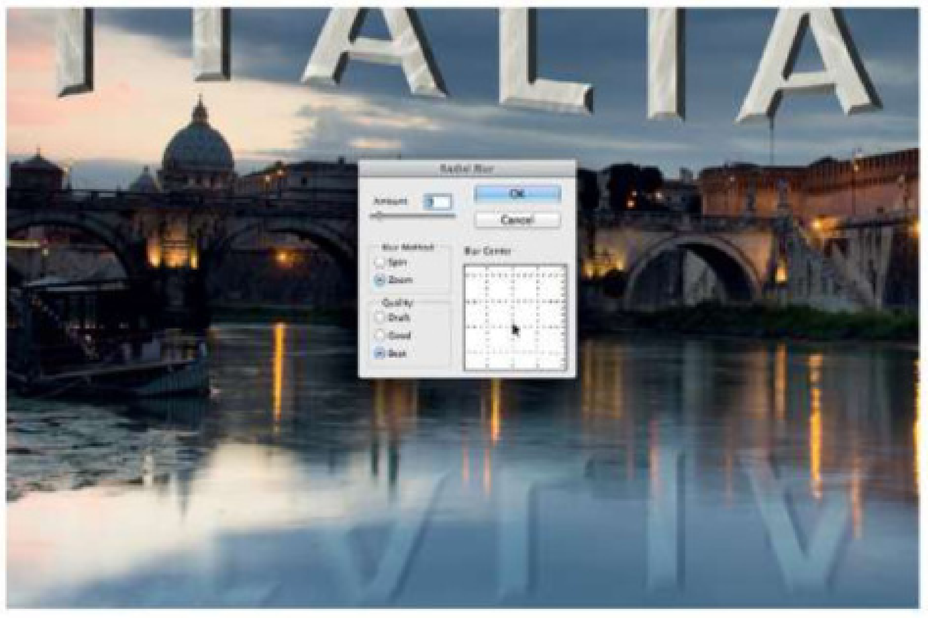
4 Add 3D edges

Choose Layer›Layer Style›Bevel & Emboss. Set Style to Inner Bevel and Technique to Chisel Hard. Set Depth 74%, Direction Up and Size 27. In Shading set Angle 164 and Altitude 11. Click the Pattern Overlay label. Open the Pattern picker and load Rock Patterns. Choose the Dirt pattern.



5 Create a reflection

Set the Blend mode to screen and opacity to 64%. Click the 'Italia' layer. Press Cmd/Ctrl+J. Click between the duplicated layer and its mask to link them. Choose Edit› Transform›Flip Vertical. Use the Move tool to drag the text to the bottom of the frame. As you drag, hold down Shift.



6 Add some blur

Click 'Italia copy' and choose Layer›Rasterize›Layer Style. Set the layer's Blend mode to Overlay and drop its opacity to 75%. Go to Filter›Blur›Radial Blur. Set Amount to 9, Blur Method to Zoom and Quality to Best. Drag the Blur Center to make it match the text above. ■

NEW!

Teach yourself Lightroom

Discover how to make your best images even better with this complete course to Adobe Photoshop Lightroom – available in book, interactive DVD and app versions!

Get the book and DVD versions today from our secure online store:

myfavouritemagazines.co.uk/photo

Available on the App Store

GET THE FILES HERE: http://bit.ly/PMZ34



Introducing the 3D workspace

Create your own unique eye-popping designs with Photoshop CC's versatile 3D modelling tools and panels

When you edit an image on your PC you're working in two dimensions – width and height. Any depth you perceive is due to the picture's perspective, but you're still working with a flat 2D image. Photoshop has a 3D workspace that enables you to convert flat 2D shapes (such as a text layer) into 3D objects that appear to have width, height and depth. You can manipulate these 3D objects by moving, scaling and rotating them in 3D space. You can also change the shape of the objects by editing their bevelled edges. Photoshop's 3D workspace enables you to create graphical content for your projects, such as text for a poster or icons for a logo, for example.

Photoshop also enables you to create 3D content from scratch and then add textures to it. Here we've created a primitive pyramid shape, scaled and positioned it in 3D space and added a texture to each facet. You can also import 3D models you've created in third-party applications, or you can download models from the web.

Photoshop creates 3D objects mathematically by using cartesian coordinates. These X, Y and Z coordinates describe the position of the object's pixels in 3D space. A flat object such as text layer has two dimensions – width (X) and height (Y). By extruding the layer in the third dimension (Z) you give it depth.

Once you're happy with the look and position of your 3D objects you can render a high-quality version of the design that includes the effects of light sources and the shadows they produce.

Photoshop Anatomy The 3D workspace

Get to know the key tools and features for working in three dimensions

1 3D WORKSPACE

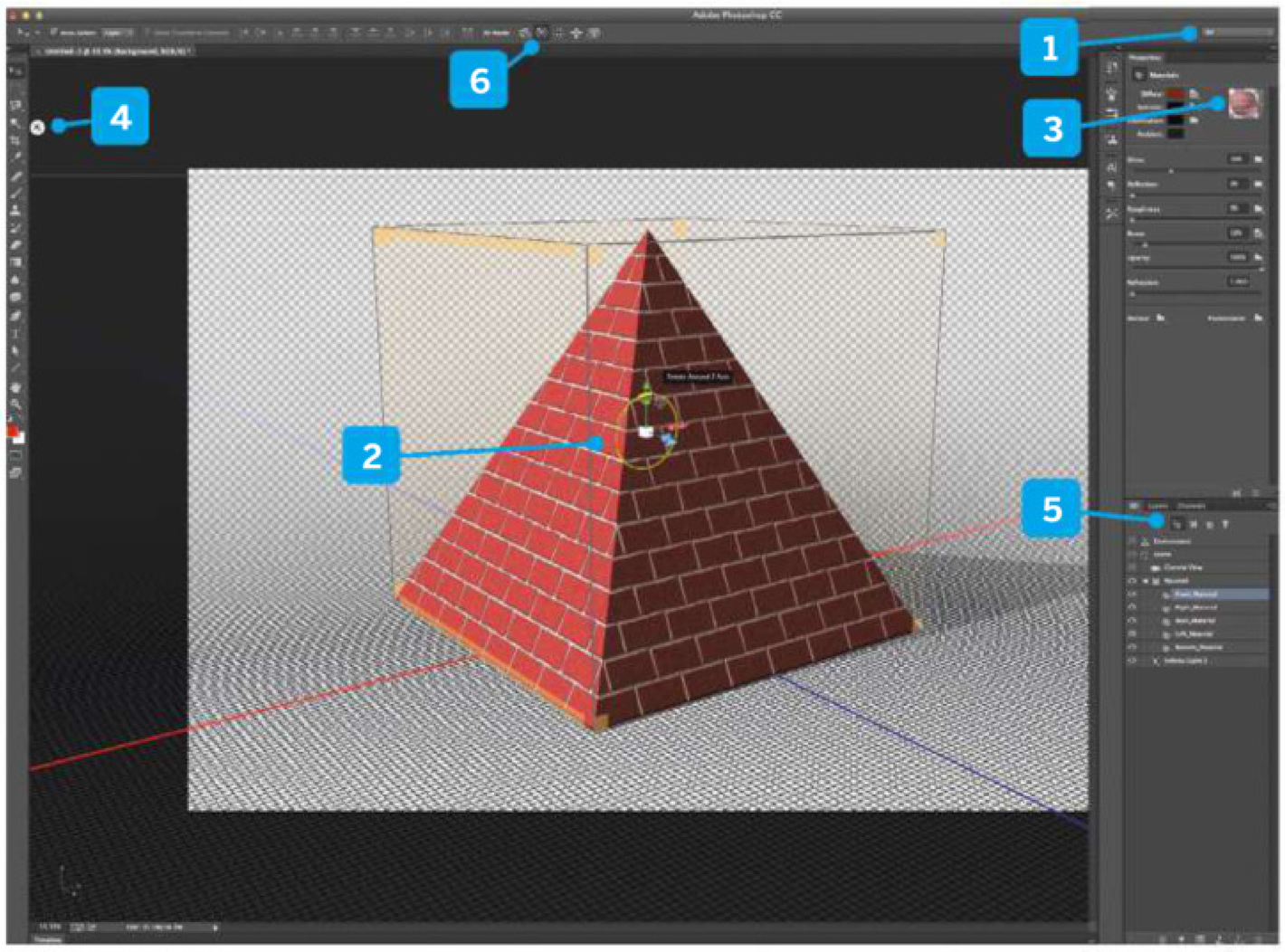
Click this drop-down menu and choose the 3D workspace. This gives you access to all the tools and panels you need to modify the shape, texture and position of your 3D models.

2 X, Y, Z

When you select a 3D model you can use this tool to manipulate it. Drag an arrow to move the 3D shape along any colour-coded axis. Drag a square to scale the shape. You can also drag any of the three rotation handles to reposition the model.

3 MATERIALS

The Properties panel enables you to click this pop-up icon to apply a range of preset textures to your greyscale 3D model. You can then modify the look of the material using the sliders below, although you'll need to render the scene to see the modified material.



4 LIGHT SOURCE

The scene comes with a light source. Click this icon and then drag handles to change the direction of the light. This will create shadows in the appropriate parts of the 3D scene. You can also modify the colour.

5 3D PANEL

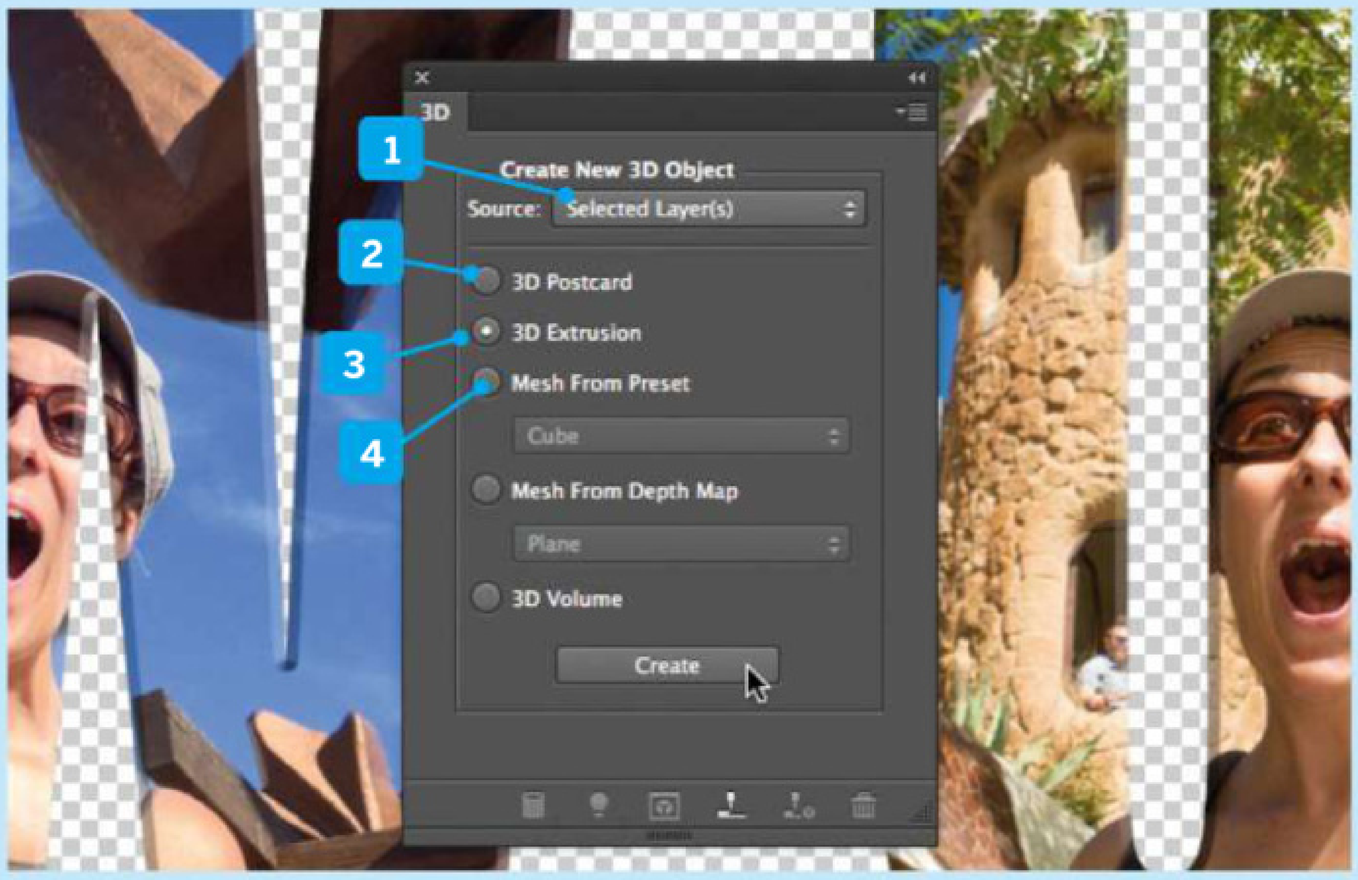
This panel helps you select a specific object or camera view. As with the Layers panel, you can turn specific objects on and off by clicking the eye icon associated with the objects.

6 3D MODE

You can use these icons to change the position of the virtual camera and make it zoom or pan to get the 3D object to match the angle of the camera in a background image layer, for example.

Understanding... THE 3D PANEL OPTIONS

As well as creating primitive shapes from scratch, the 3D panel enables you to generate 3D models from a 2D layer. Select a layer in the Layers panel and then click here **[1]** to define it as the source for your model. The 3D Postcard option **[2]** projects the layer onto a flat sheet that you can rotate to change the perspective. The 3D Extrusion option **[3]** extends layer content (such as text) along the Z axis. If you choose Mesh From Preset you can project your layer onto a range of primitive 3D shapes such as cubes and spheres.



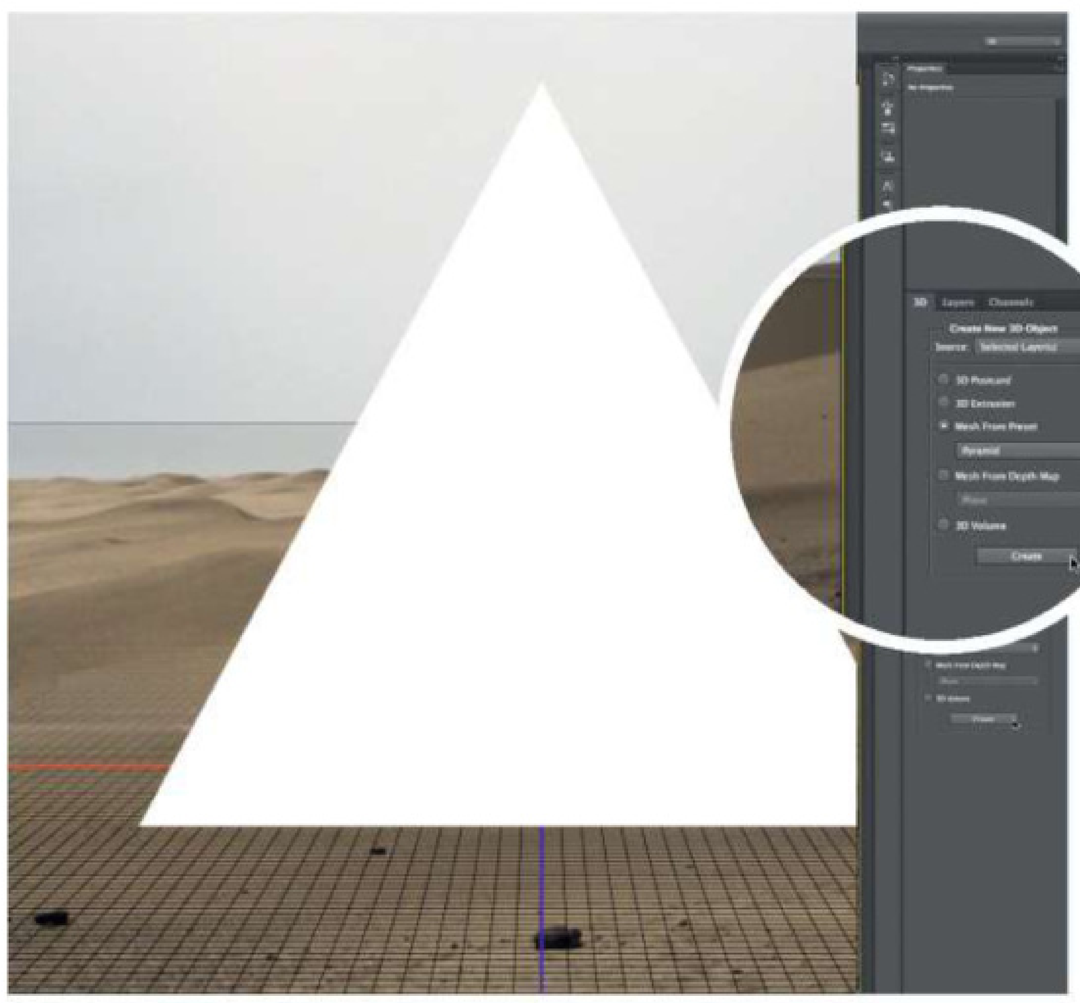
GET THE FILES HERE: http://bit.ly/PMZ34

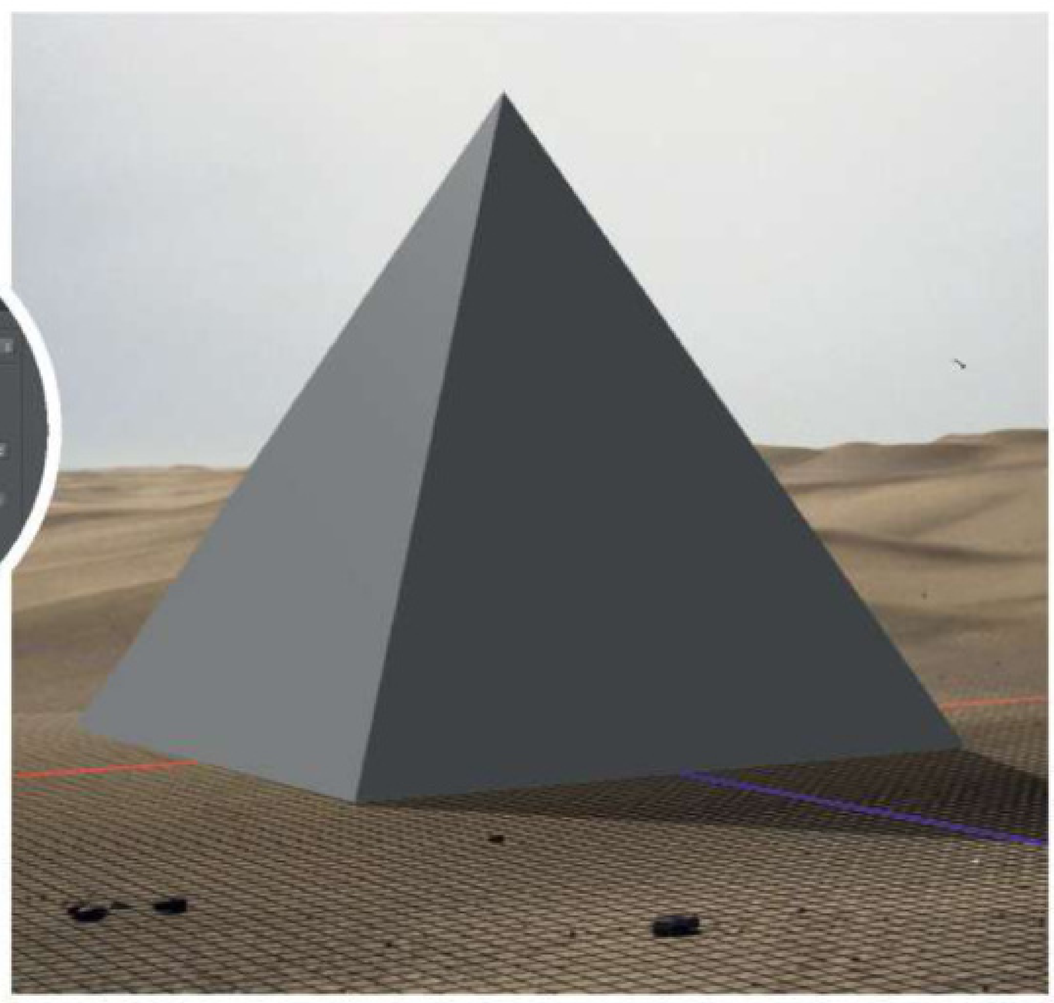




A simple 3D scene

Create a 3D shape from scratch using Photoshop CC, then add some texture and composite it into a 2D photographic scene



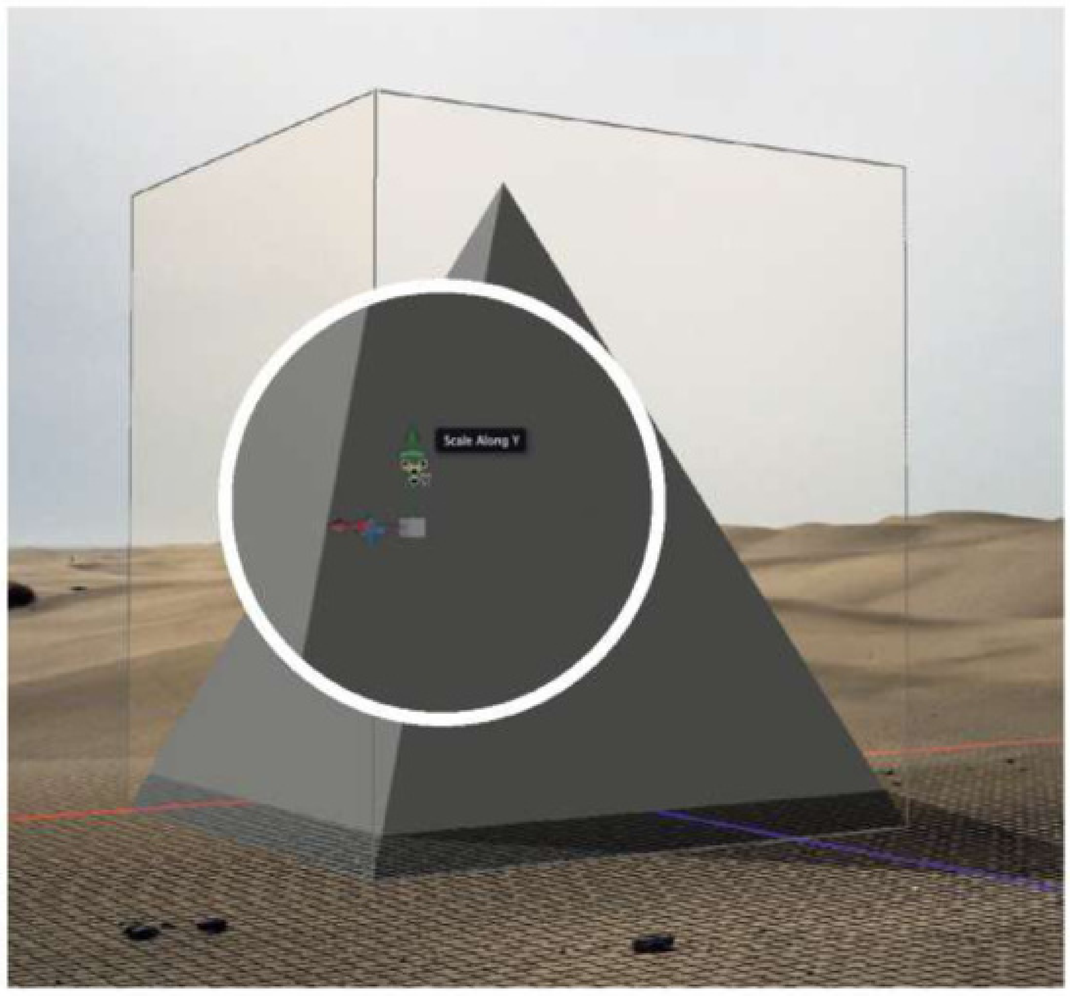


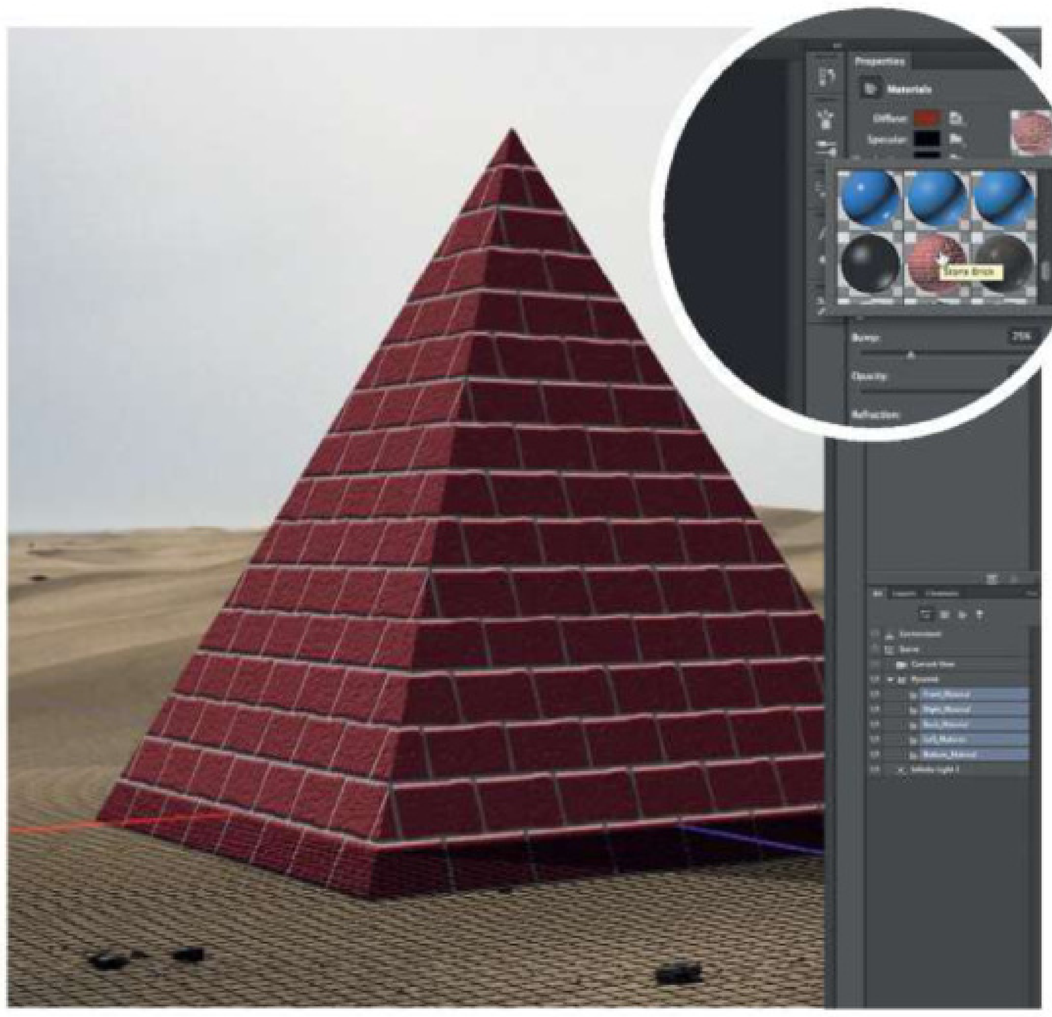
1 Create a 3D object

Go to File›Open and browse to the supplied starting image – TYCC82.jpg. Click Open. This will form a background layer for the 3D scene. Choose Layer›New›Layer. Click OK to create a transparent layer. To access all the 3D tools and panels that you'll need, go to Window›Workspace›3D. Go to the 3D panel and click the Mesh From Preset button. Set the drop-down menu to Pyramid. Click Create. A 3D pyramid shape will appear.

2 Rotate the camera

Click the pyramid with the Move tool to select it. In the Properties panel, make sure that the Cast Shadows box is ticked (but clear Catch Shadows). In the 3D panel, click Current View. Go to the 3D Mode bar at the top and click the Rotate the 3D camera icon. Drag in the workspace to rotate the camera so that the pyramid's 3D horizon plane matches that of the background image. This helps make the pyramid look like it belongs in the scene.



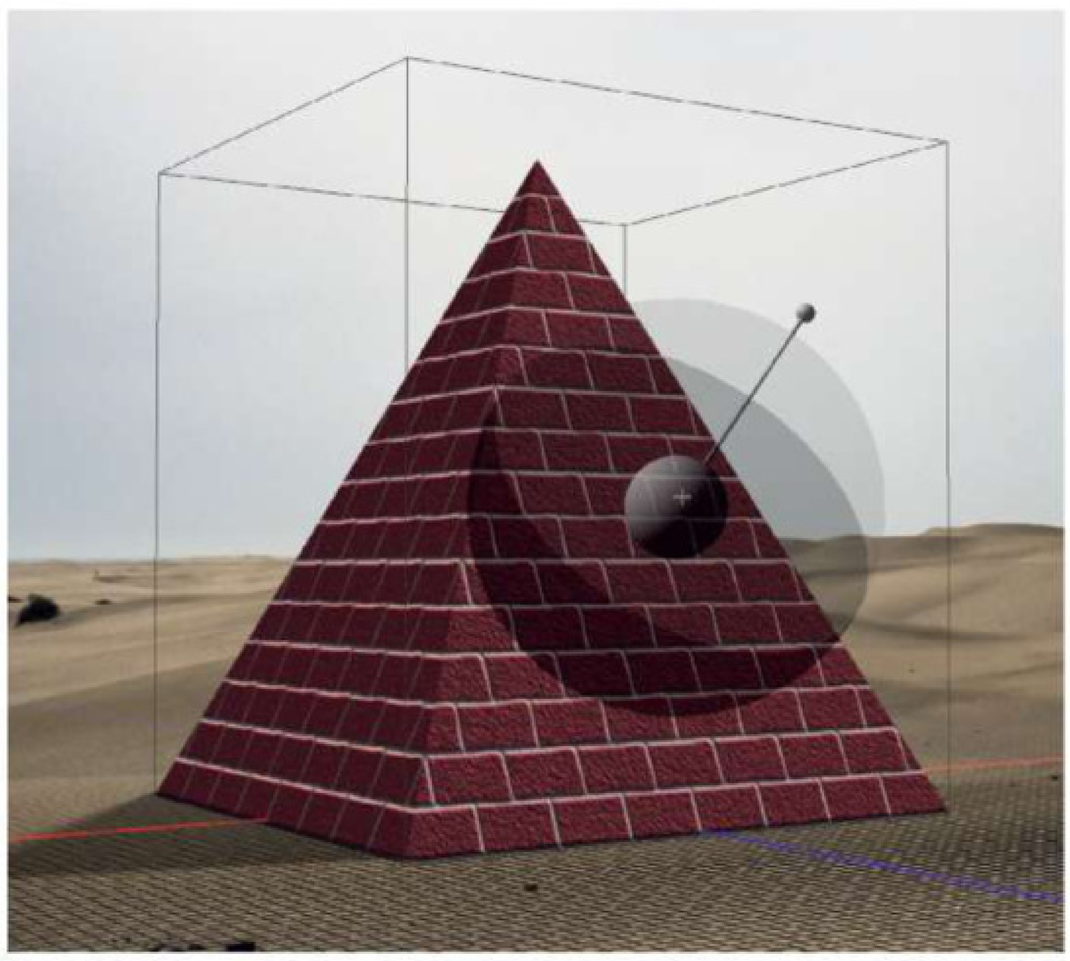


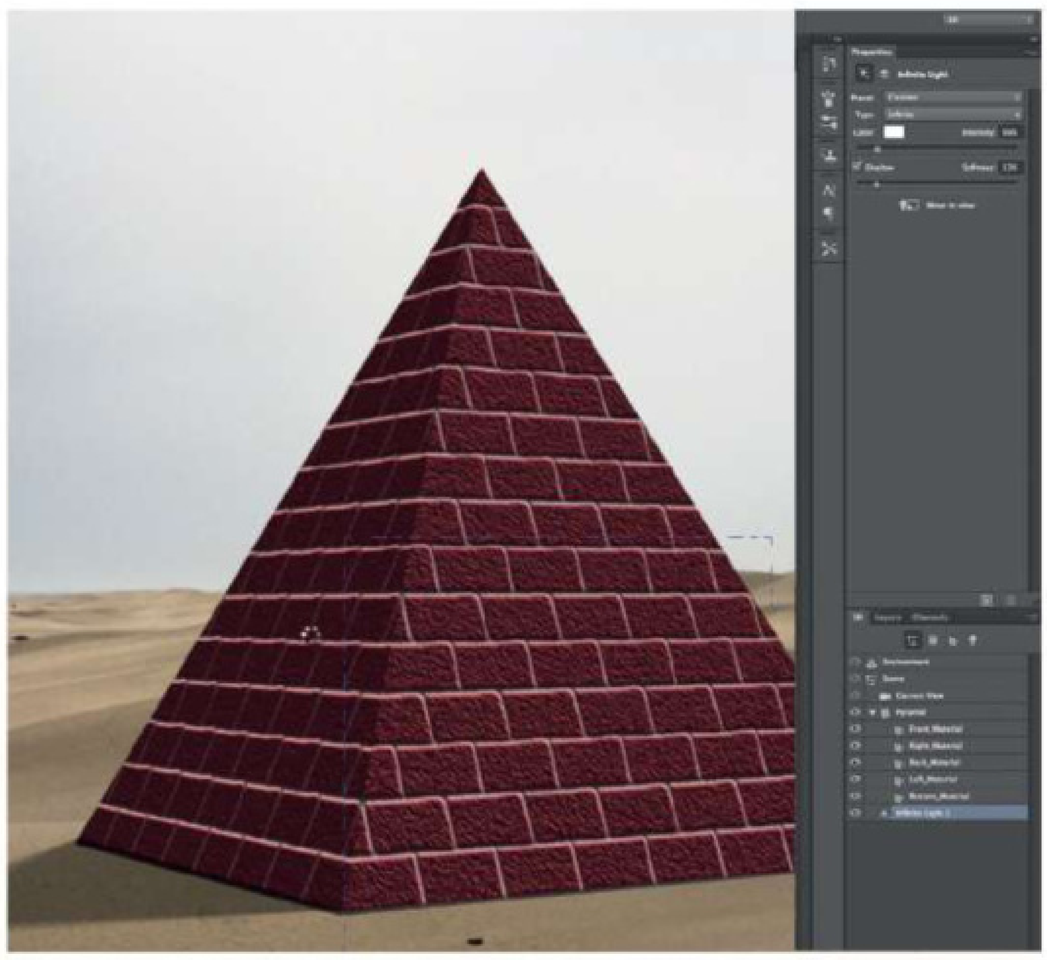
3 Scale the object

Click the pyramid to select it. The X Y Z control handle will appear. Click the green Y axis handle's rectangular scale icon. Drag this handle upwards to stretch the pyramid vertically. You can use the other colour-coded handles to squash, stretch, move or rotate a 3D shape. The red handle moves the object horizontally along the X axis. The blue handle moves the object closer or further away from the camera along the Z axis. The active handle turns yellow.

4 Add a texture

The 3D object has a grey texture. In the 3D panel, Shift-click to select the pyramid's materials. Click the Materials picker icon to see some preset textures. Scroll down and click to choose the brick texture. This will be applied to the pyramid's selected surfaces. Drop the shine slider to 0%. Increase Bump to 25% to show a rougher brick texture with deeper grooves when we render the model.





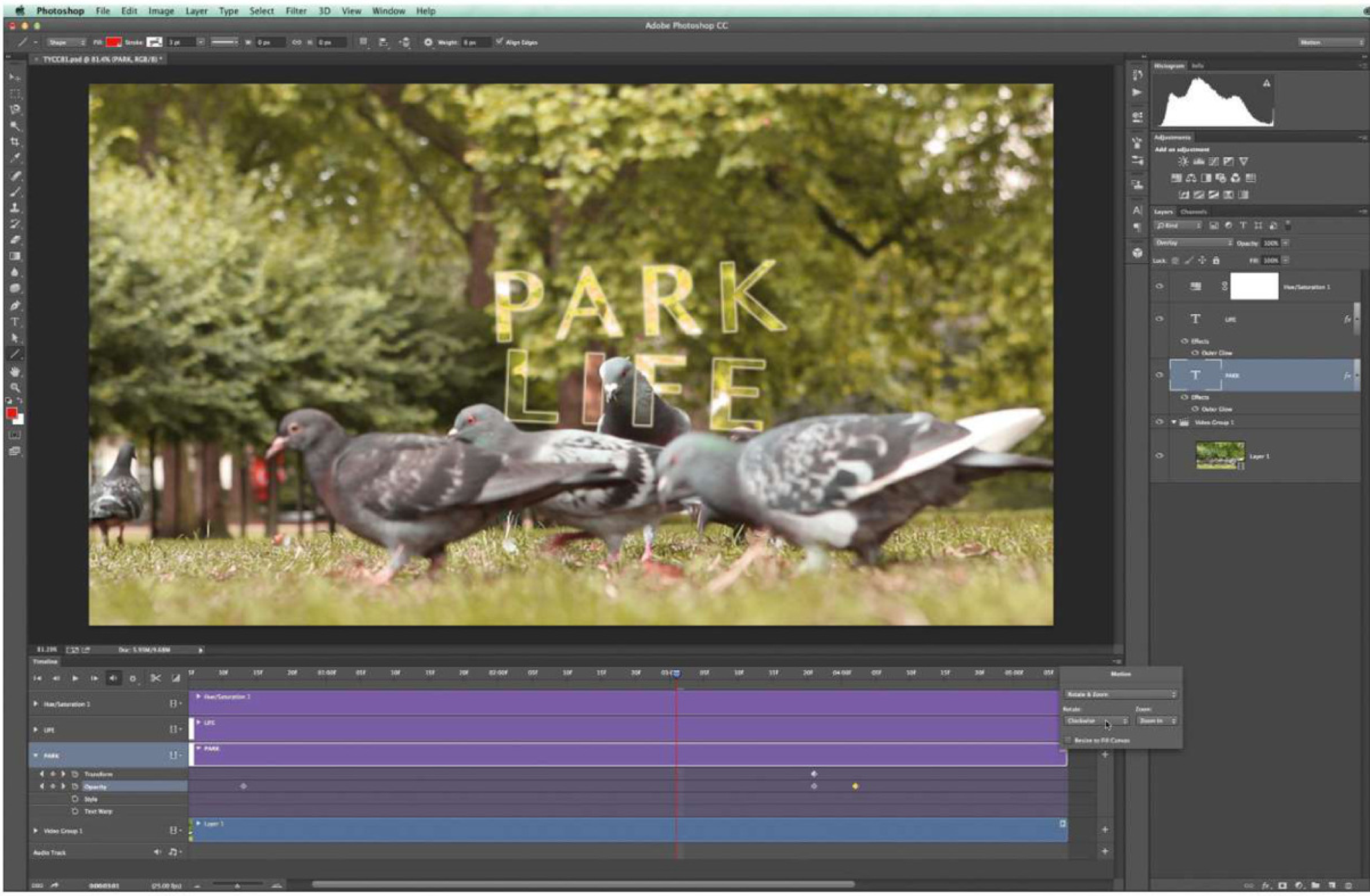
5 Fine-tune the lighting

The 3D environment has an infinite light source that mimics the sun. You could use the Properties panel to change this to a spot light if desired and tweak the light's colour too. There are also preset lights to explore. Drag Shadow Softness to 13% for less harsh edges. Drag the light's control handle to change the position of the light source so that the lighting and shadows match those in the background image layer.

6 Render the model

To produce a higher quality version of the 3D model with more realistic lighting and shadows, go to 3D›Render. This will produce better-looking textures too. A blue box will appear around an area as it renders. A progress bar at the bottom left will indicate how long the scene will take to render. Once the rendering is complete you can flatten the document and output the image as a JPEG or TIFF. ■

GET THE FILES HERE: http://bit.ly/PMZ34



Introducing the Motion workspace

Discover how Photoshop CC enables you to enhance video clips with adjustment layers, text effects and more

The latest cameras have the ability to shoot HD video clips as well as stills. To reflect the fact that you may have video clips in your collection, Photoshop now enables you to import video footage into its workspace. Unlike dedicated non-linear video editing applications such as Adobe Premiere, you wouldn't want to use Photoshop to edit a large collection of clips. However, you can use Photoshop to enhance the colours and tones of clips in the same way as you'd adjust a still image. Video is just as prone to suffer from problems with exposure and colour balance, so you can improve colour in video using a Photo Filter adjustment layer, or lighten the midtones with a Levels adjustment layer, for example. This enables you to fix video problems without needing to master complex applications such as Adobe After Effects.

Like many non-linear video-editing applications, Photoshop has a Timeline. This displays frames in a horizontal bar. You can scrub the playhead back and forth to fast forward or rewind the footage. You can also add text to your clips and use the Timeline's preset motion commands to make the text move. This enables you to produce slick title sequences that you can export and add to video projects in Adobe Premiere.

Photoshop Anatomy The Motion panel

Treat a video clip like an image layer and animate using the Timeline

1 TIMELINE

The Timeline is like the Layers panel, except it enables a layer's content (such as text) to change position or opacity over time. The Timeline in this example has text layers and a video clip running parallel.

2 MOTION

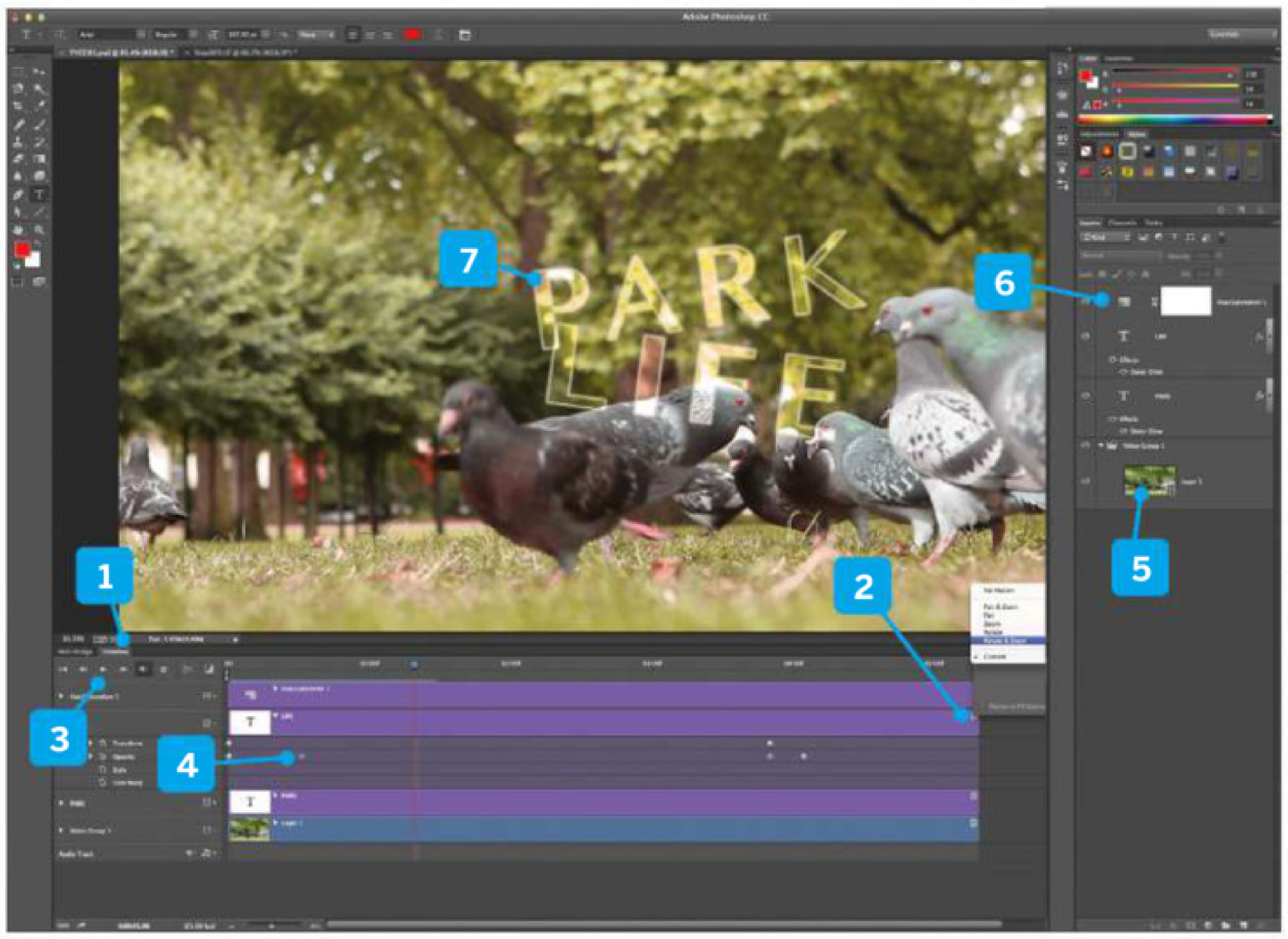
To quickly animate a layer (such as the 'Life' text layer in this example), click this fly-out icon and chose a preset motion such as Rotate & Zoom. You can manually set the angle of movements such as Pan.

3 PLAY

To preview a layer's movement and changes in opacity, click this icon. You can also preview the animation by tapping the space bar, or by dragging the playhead to the left or right.

4 KEYFRAMES

These diamond-shaped symbols indicate that keyframes have been added at two different points on the Timeline. Photoshop will automatically animate a layer's properties (such as its opacity or position).



5 GROUPS

When you create text it will appear in the Video Group folder, and will appear once the video clip has played. To make the text run parallel with the footage you need to drag its thumbnail out of the Video Group.

6 ADJUSTMENT LAYER

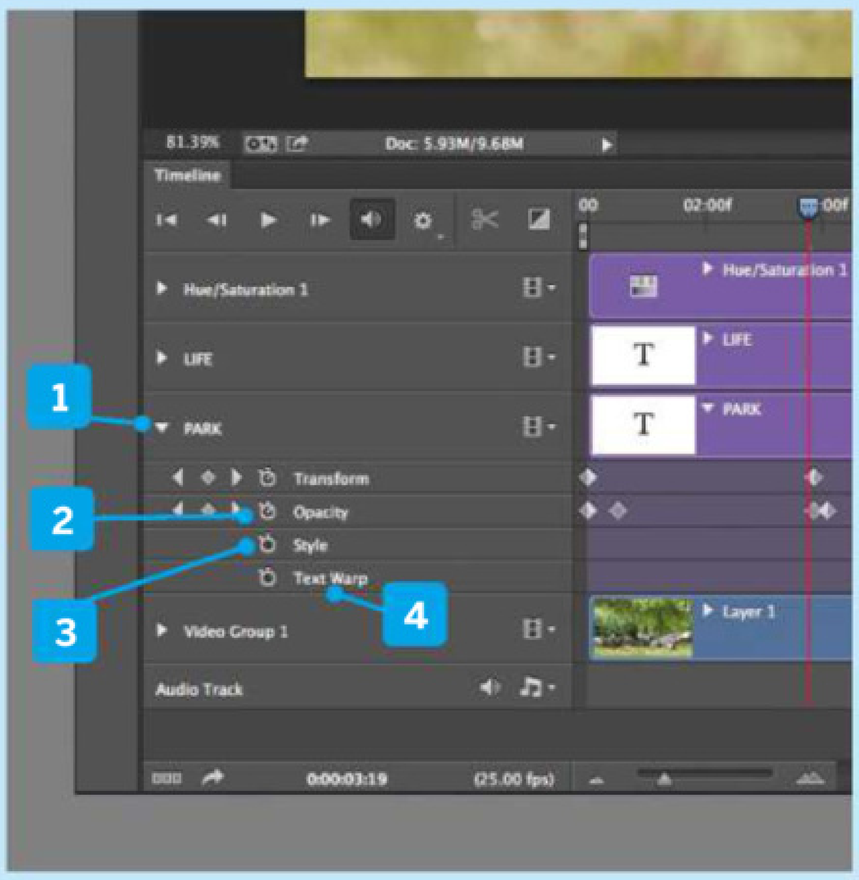
You can enhance your video sequences by adding adjustment layers that tweak the colours and tones. Here we've used a Hue/Saturation adjustment layer to give the greens and yellows a more Autumnal hue.

7 LAYER STYLES

We've added a glow to our text courtesy of Layer Styles, and used the Timeline's automatic motion presets to make it zoom and rotate. The Overlay Blend mode mixes the text with the video.

Understanding... ANIMATABLE PROPERTIES

Click here **[1]** to toggle open the targeted layer's animatable properties and set keyframes. The Transform channel **[2]** enables you to add keyframes that make the layer's content move from A to B over a specific duration. The Opacity channel **[2]** records the opacity value of a layer. By changing this value you can make a layer's content fade in or out (as we have with our text layers). You can add keyframes to introduce Layer Styles **[3]**, such as the Outer Glow on our text. You can also animate the Text Warp **[4]** option to make text change shape as it moves about.



WARP FACTOR

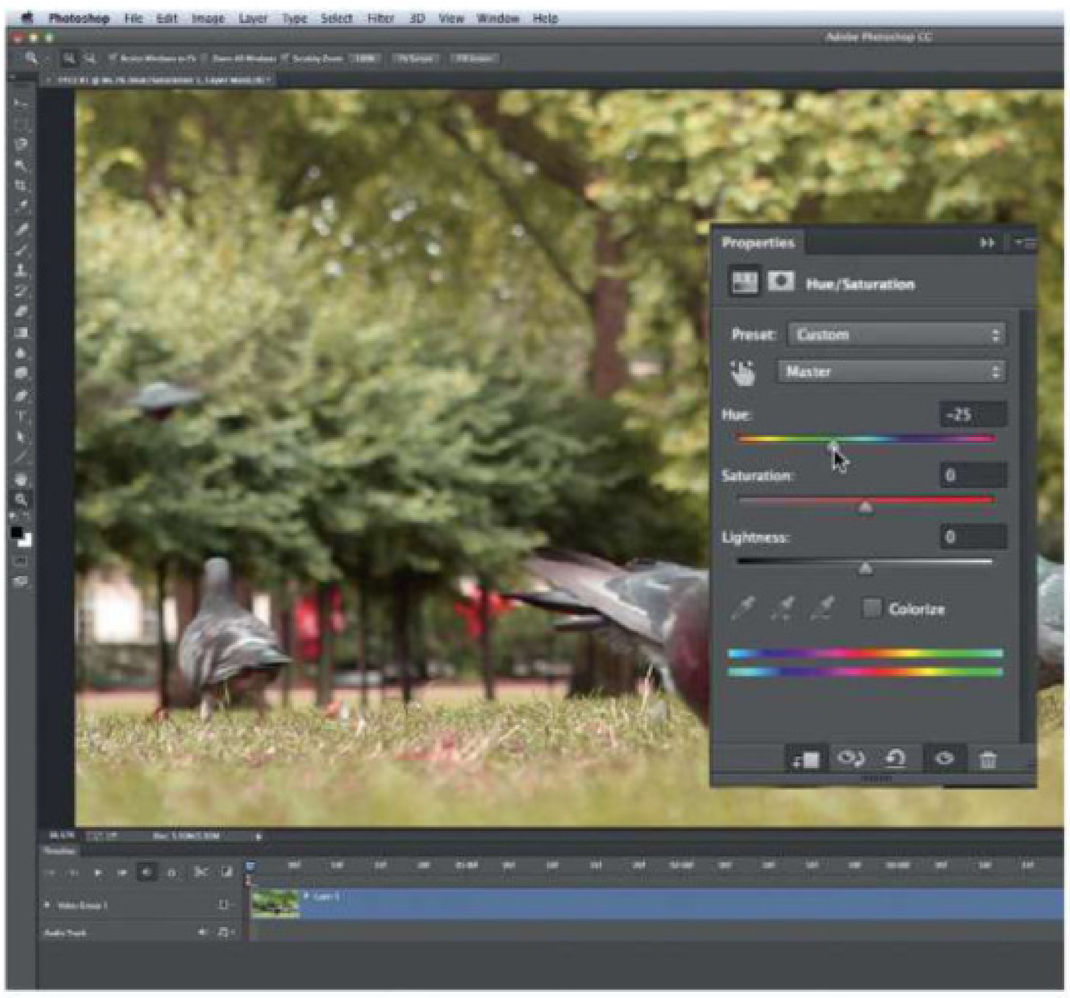
To warp a text layer, you need to add a keyframe to record its original shape and then another to record the warped version. The Timeline will then create all the frames between the start and end keyframes to make the text warp smoothly. Scrub the playhead to frame 1 and click the stopwatch icon in the Text Warp channel to enable keyframe animation. Scrub the playhead forward a few frames and click the Create Warped Text button in the Options bar. Choose a warp effect such as Arc. Click OK. Click the diamond-shaped Add key frame icon in the Text Warp channel. The text will now warp between the two keyframes. Use this technique to record changes in Layer Styles too. ■

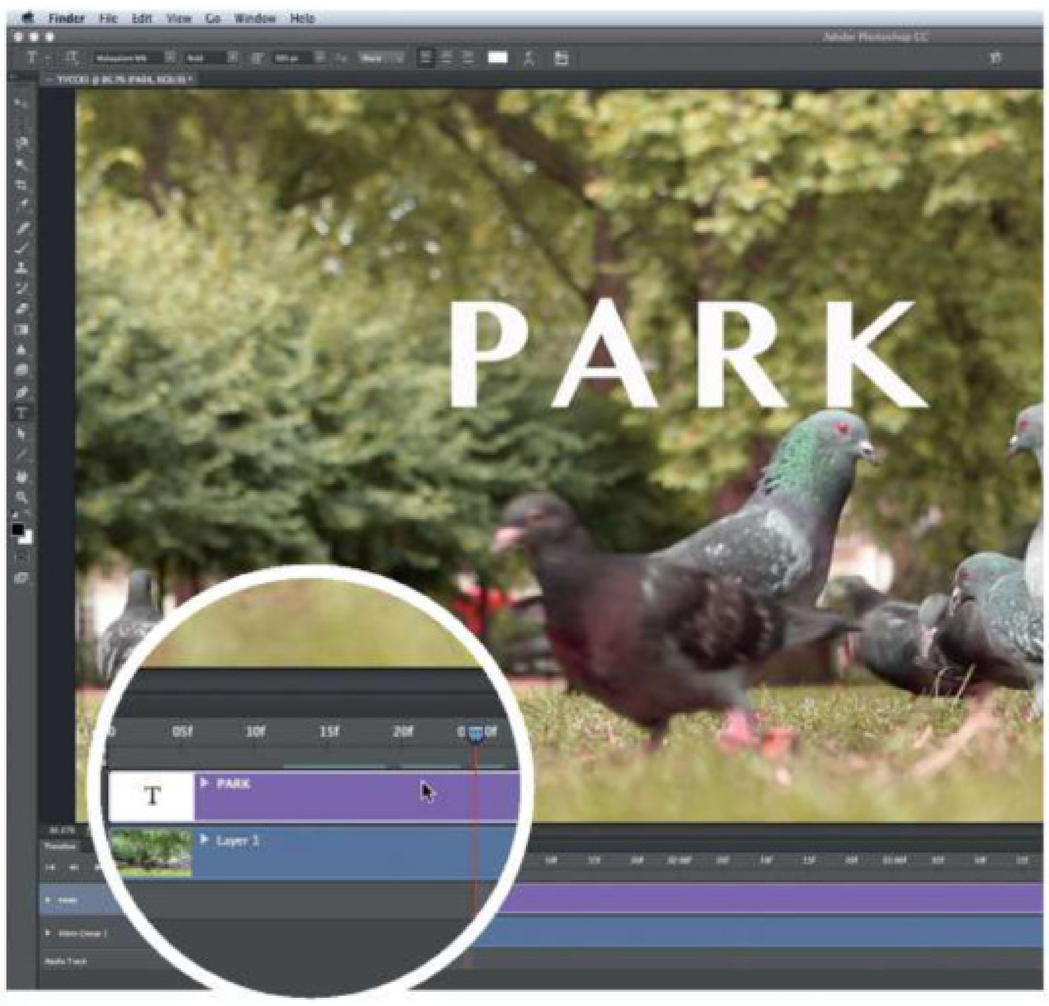
GET THE FILES HERE: http://bit.ly/PMZ34



Enhance a video clip

Use the Motion workspace to augment video footage with animated text and tweak the colours using adjustment layers



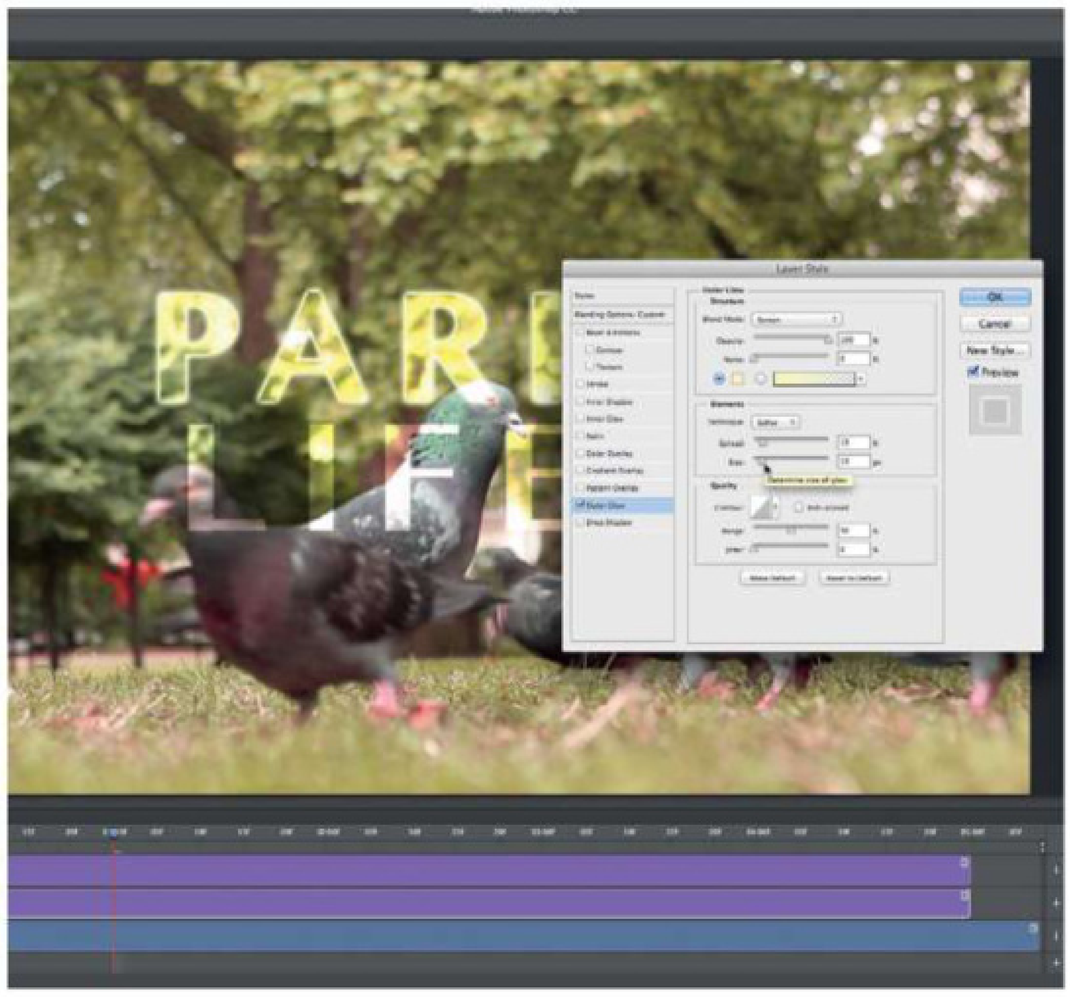


1 Add an adjustment layer

Go to Window›Workspace›Motion. The Timeline will appear. Go to File›Open and browse to our short video clip – TYCC81.mov. Click Open. The clip will appear in the Timeline as a Video Group. It will also appear in the Layers panel. Choose Layer›New Adjustment Layer›Hue/Saturation. Drag Hue to –25 to add a more autumnal hue to the scene. You can use any adjustment layers to alter the colours or tones of a video clip.

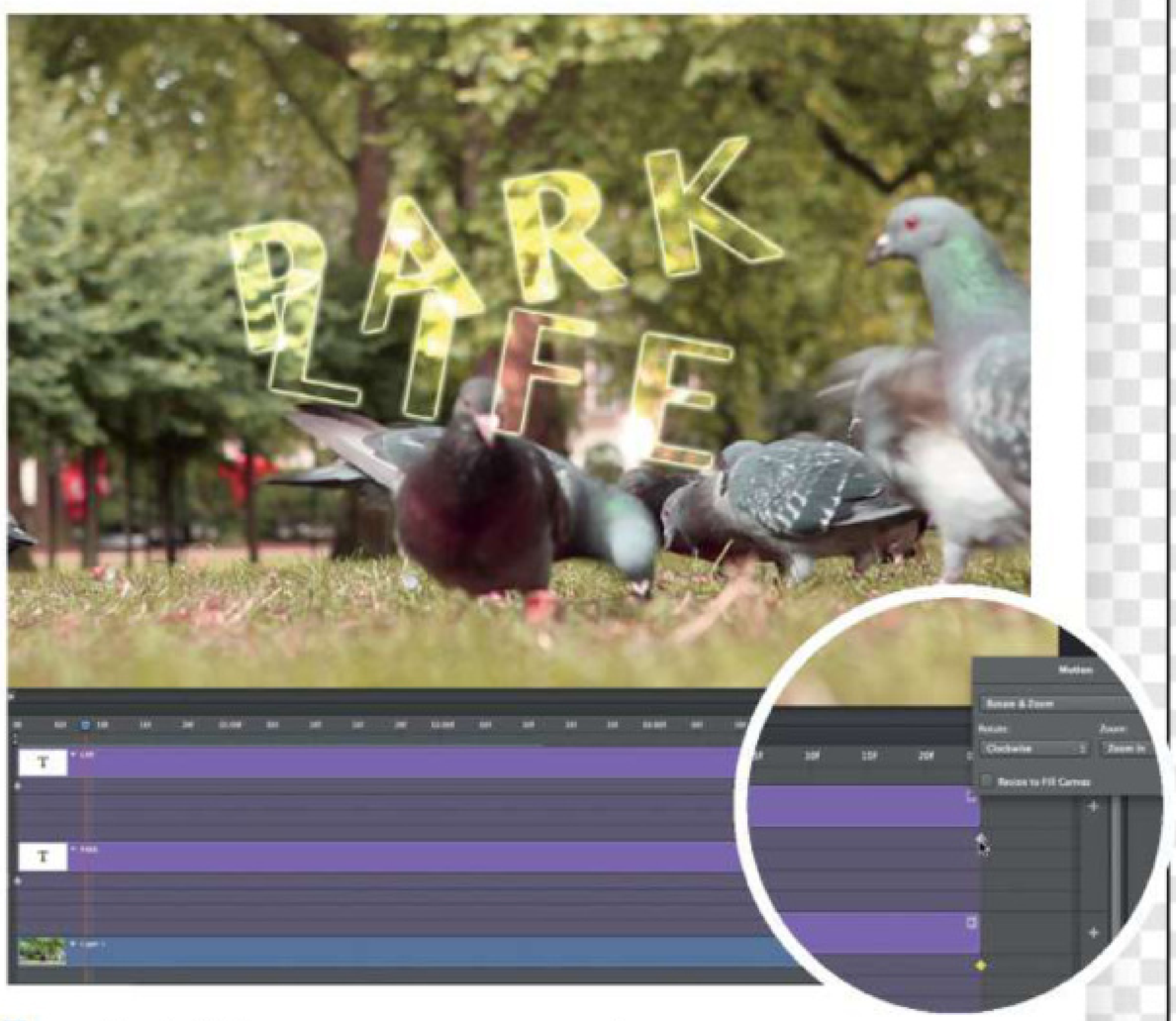
2 Add some text

Select the Horizontal Type tool. Choose a font and set the size to 300 and the style to Bold. Type 'PARK'. By default, the text will be placed after the video clip in the Timeline. Go to the Layers panel and drag the Text layer's thumbnail out of Video Group 1, so that it exists as a separate layer at the top of the stack. In the Timeline drag the text layer to run parallel with the footage.



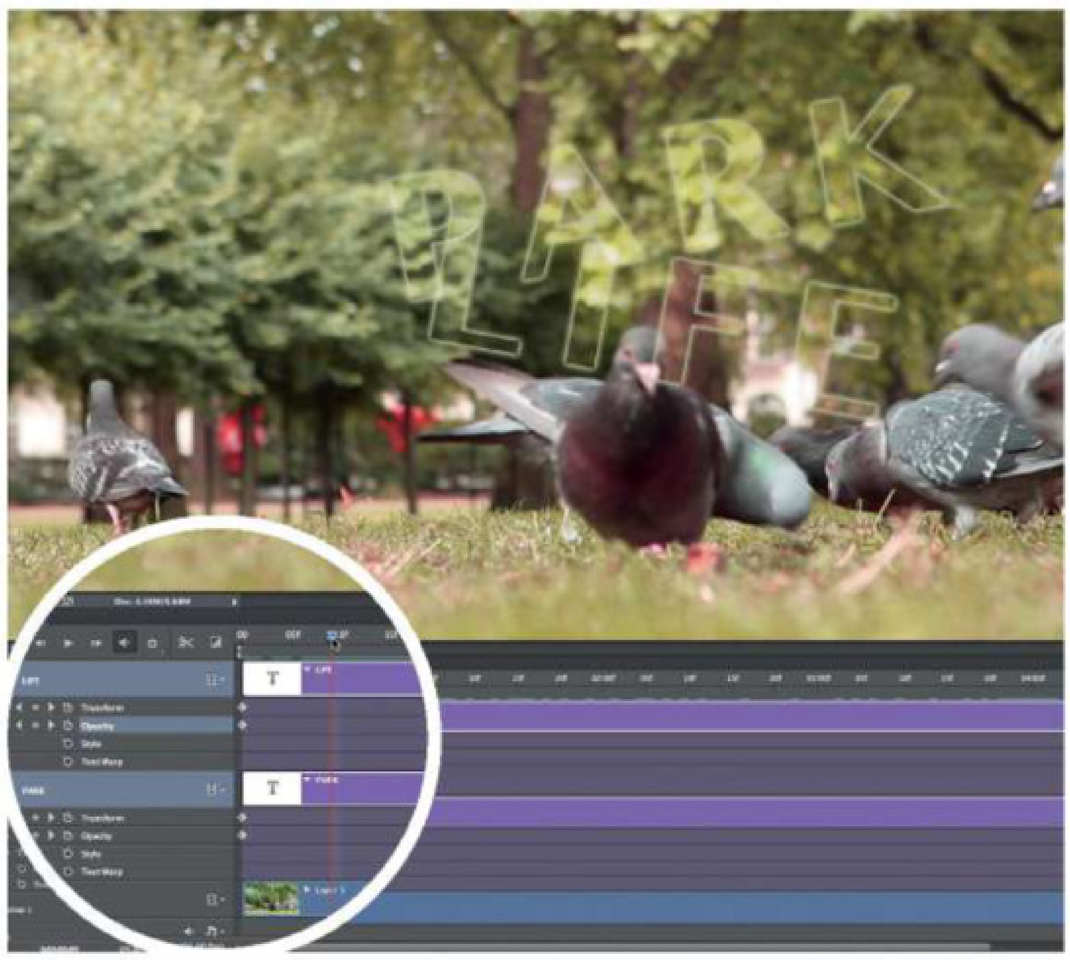
3 Add a Layer Style

Click the PARK layer and press Cmd/Ctrl+J to duplicate it. Double click the copied layer's T icon and change the text to 'LIFE'. Use the Move tool to position the text as shown above. Change the Blend mode of both text layers to Overlay. Click the Layer Styles icon and choose Outer Glow. Click the Outer Glow label and set Spread and Size to 13 pixels. Click OK. Add the same Layer Style to the LIFE text.



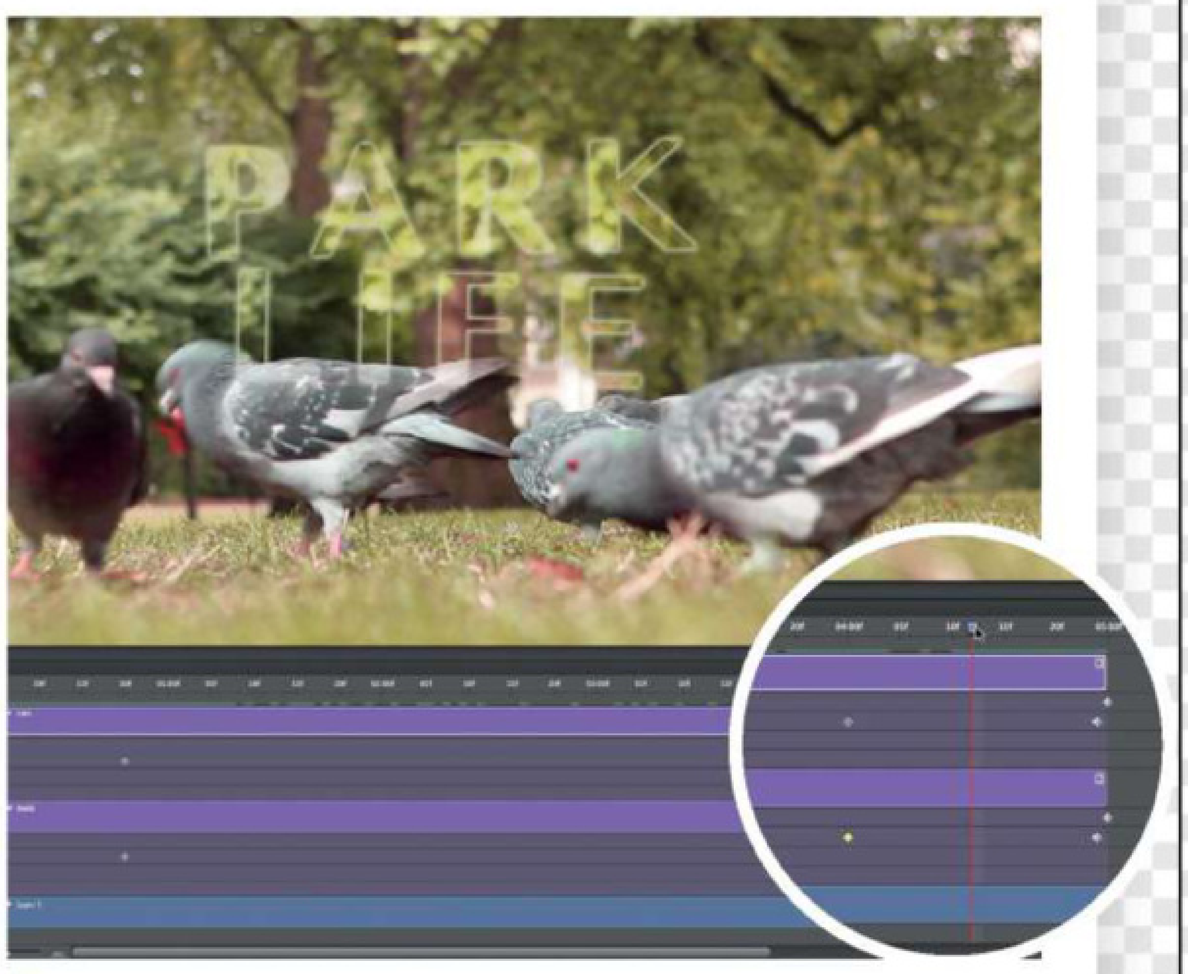
4 Add some movement

In the Timeline, click the Motion fly-out icon on the LIFE layer and choose Rotate & Zoom. Choose Clockwise. Set the PARK layer to rotate and zoom in a counter-clockwise direction. Toggle open the LIFE layer and swap the position of the Transform attribute's two diamond-shaped keyframe icons. This reverses the movement of the text so it starts tilted and ends up horizontal. Do the same with PARK.



5 Fade in

Scrub the playhead to the first frame. In the Layers panel, set the opacity of the PARK and LIFE layers to 0. In the Timeline, click the Stopwatch icons in the opacity channels of both text layers to add a keyframe. Scrub the playhead to 2 seconds. Restore the opacity values to 100% in both layers. Two new opacity channel keyframes will appear automatically. Now the text will fade in. Scrub the playhead to preview the movement and fades.



6 Fade out

Scrub the playhead right to 4 seconds along the Timeline. Click the diamond-shaped Add keyframe at playhead icon in the opacity channels of both the PARK and LIFE layers. Scrub to just before the end of the sequence, then set the opacity of both text layers in the Layers panel to 0%. New keyframes will appear automatically in the Timeline, so the text will start fading out after 4 seconds until the end of the clip. ■

GET THE FILES HERE: http://bit.ly/PMZ34



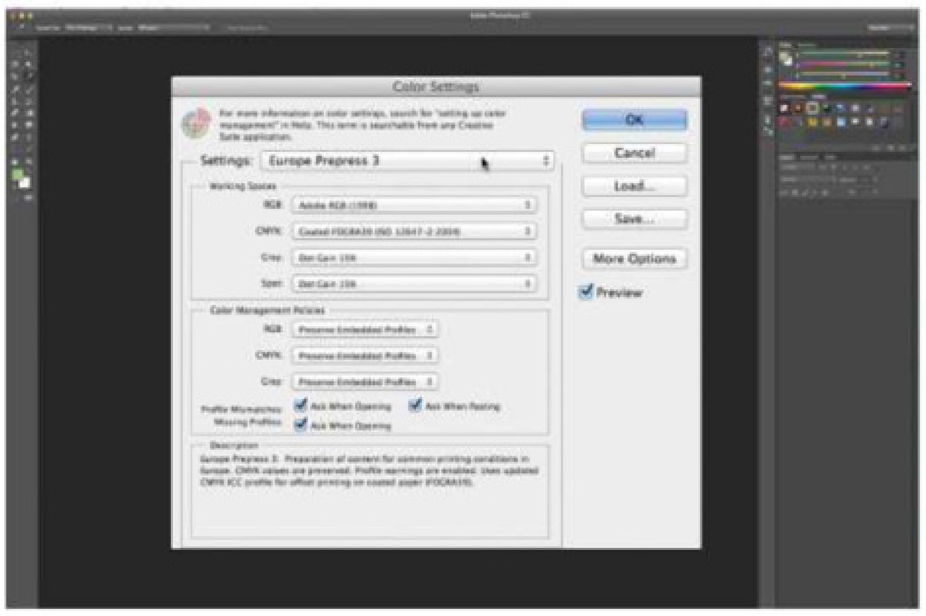
Prepare your photos for print

Produce perfect colour prints of your photographs by optimising Photoshop's colour space for printing

After processing a photo to look good onscreen, you may end up with a print that suffers from shifts in colour. The discrepancy between the screen and print colour is caused by a variety of factors. Your computer's screen produces millions of colours by mixing reds, greens and blues (RGB) together, while most domestic printers combine cyan, magenta, black and yellow (CMYK) inks to create a narrower range of colours. Colours that can't be printed are referred to as 'out-of-gamut' colours.

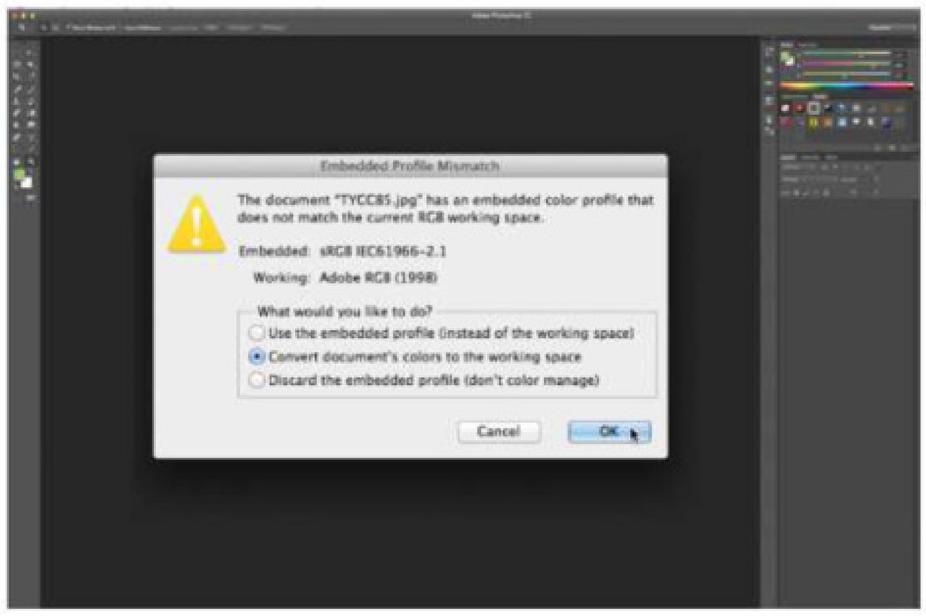
In this tutorial we'll demonstrate how to prepare a picture for print and avoid colour-related disappointments. By default, Photoshop uses the screen-friendly colour space called sRGB (standard RGB). You can change this colour space to a narrower, more printable one called Adobe RGB (1998) that helps you reduce the number of out-of-gamut colours. There's also a handy gamut warning that you can summon to identify unprintable colours.

We'll show you how to set up Photoshop's colour management tools so that you can convert files that have an unprintable sRGB colour space to the printer-compatible Adobe RGB (1998) colour space. We'll also demonstrate how to change Photoshop's colour mode so it's compatible with the printer's CMYK ink-mixing technique, so that your images have a vibrant, printable range of colours.



1 Manage your colours

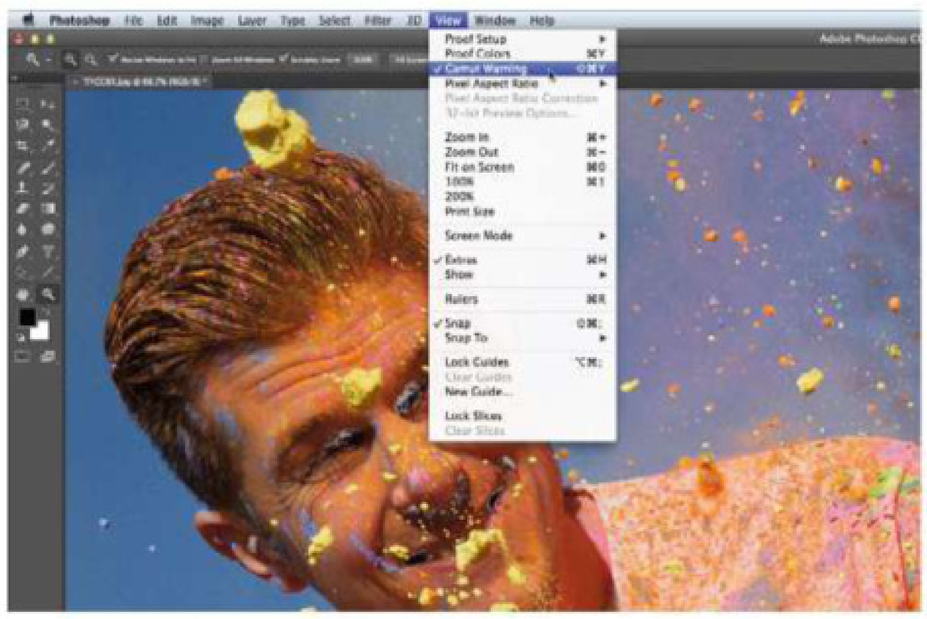
Go to Edit›Color Settings. In the Color Settings window, choose an appropriate location-based profile such as Europe Prepress 3. This will ensure Photoshop uses a print-friendly colour space called Adobe RGB (1998) instead of the default sRGB one. Leave the Profile Mismatch boxes ticked.



2 Convert the embedded profile

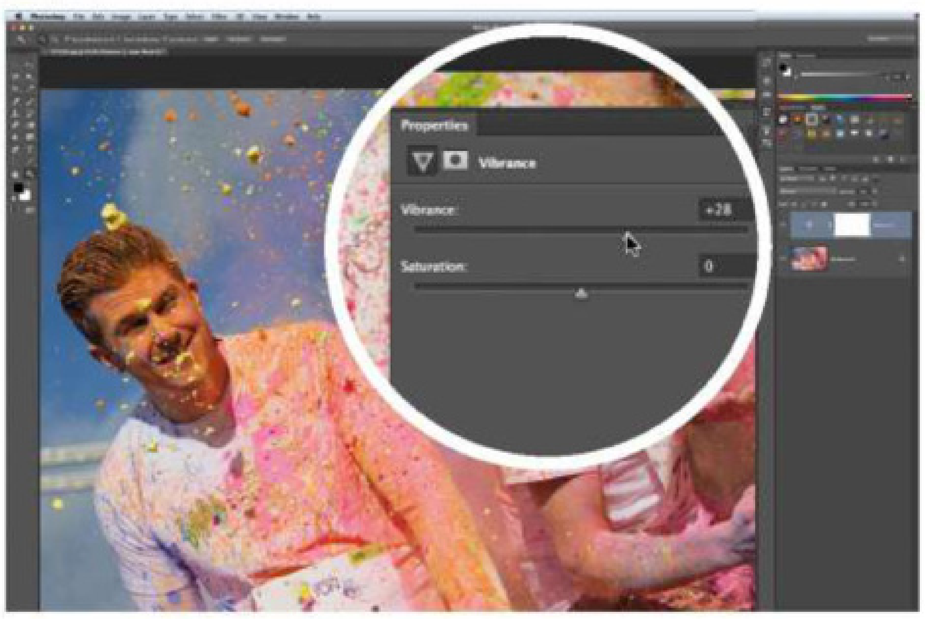
Open TYCC85.jpg. The embedded colour profile of this image describes its colours using the screen-friendly sRGB colour space. You can change the sRGB profile to a printer-compatible one by ticking the 'Convert document's colors to the working space' button. Click OK.





3 Gamut warning

To discover remaining unprintable colours, choose View›Gamut Warning. Problematic colours will appear as patches of grey. You could use a Vibrance adjustment layer to reduce the saturation of the colours. The gamut warning patches would vanish, but other colours may look a bit drab.



4 Change the mode

Go to Mode and choose CMYK Color. Click OK. This forces the colours into a print-compatible CMYK colour space. The gamut warning patches will vanish. Choose Mode›RGB Color. You can now use a Vibrance adjustment layer to boost the saturation without producing warnings. ■

Digital Camera

Britain's best-selling photography magazine

Take your photography skills to the next level with the world's leading mag for SLR users!

Three reasons why Digital Camera is the definitive guide to SLR photography...

1



2



3



Expert tips & tutorials **Inspiring interviews** **In-depth kit tests**

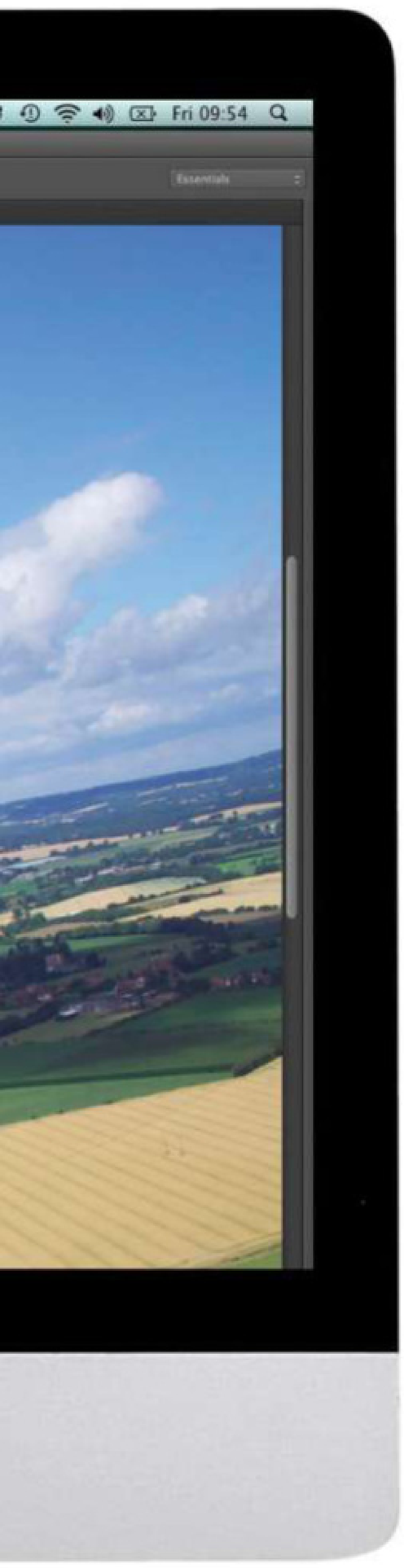


No 1 FOR GIFTS

Order online or subscribe today!

www.myfavouritemagazines.co.uk/digitalcamera


Photoshop File Edit Image Layer Type Select Filter 3D View Window Help
Adobe Photoshop CS6
X: 1451.50 px Y: 450.50 px W: 100.00% H: 100.00% -27.23° H: 0.00° V: 0.00° Interpolation: Bicubic
Transform.psd @ 41.6% (Layer 7, RGB/8*) *
plane_background.jpg @ 50% (Layer 2, RGB/8*) *
plane02_before.JPG @ 50% (Layer 0 copy, RGB/8*) *
-27.2°



Tool School

Discover the best ways to use Photoshop's most powerful and useful image-editing tools

168 Photoshop's healing tools
Master the Healing Brush, Spot Healing Brush, and Clone Stamp tools for speedy image tidying and flawless retouching

172 The Quick Selection and Magic Wand tools
Master the Quick Selection and Magic Wand tools to make detailed extractions from your images

176 The Dodge, Burn and Sponge tools
Get to grips with these versatile tools that enable you to tweak the tones of your photographs with precision

180 The cropping and resizing tools
Maximise the potential of your photographs by cropping and resizing them to improve their composition

184 The Blur, Sharpen and Smudge tools
Selectively blur, sharpen or smudge parts of an image with precision using these brush-based tools

188 The Color Range selection tool
Overcome tricky selection challenges by targeting and editing a specific range of colours in an image

192 Content-Aware technology
Clone, move, patch and heal an image the smart way using the intelligent Content-Aware tools

198 Automated Photoshop Actions
Streamline your image-editing workflow by turning repetitive tasks into automated Photoshop Actions

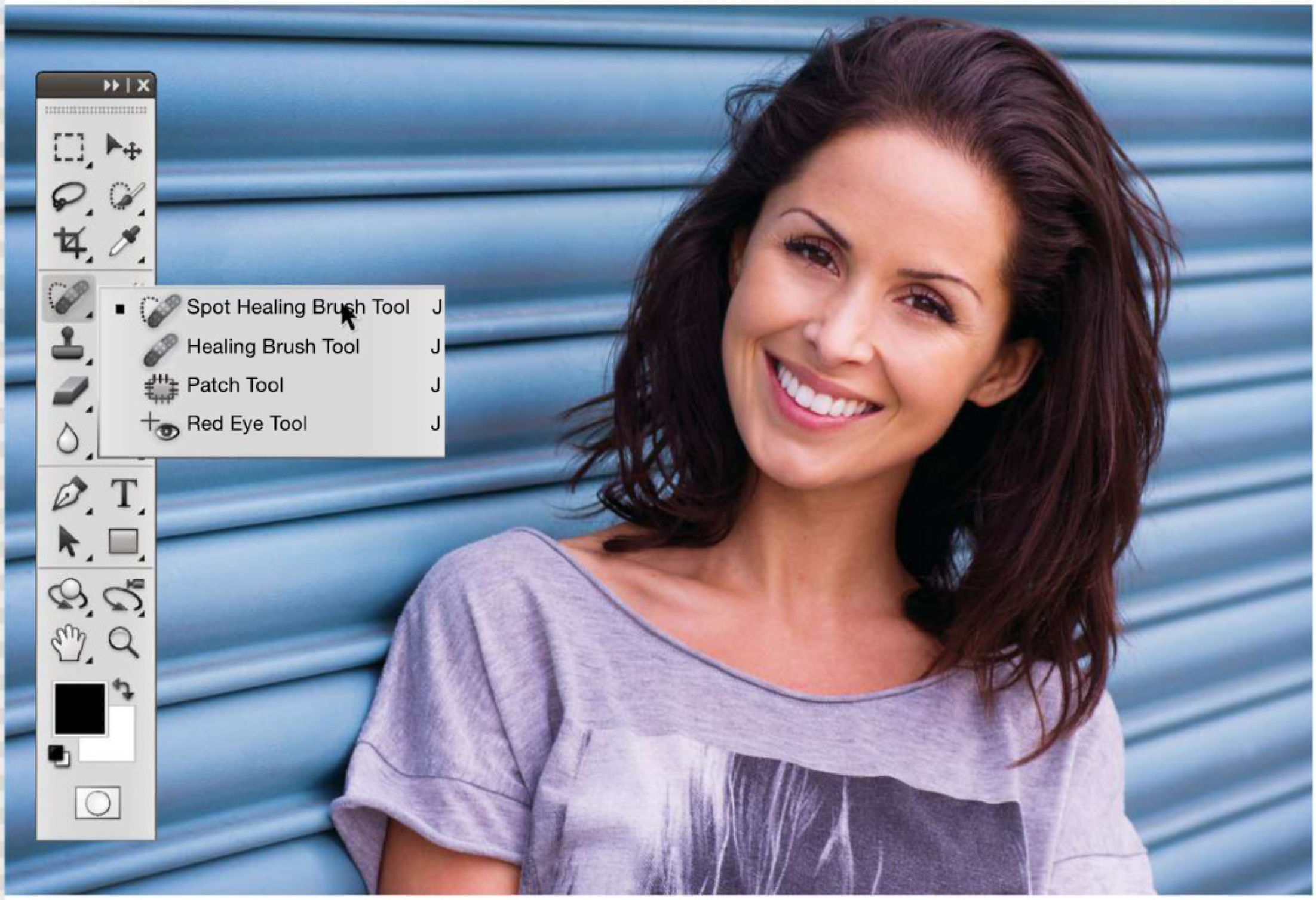
202 The powerful Refine Edge tool
Get perfect selections every time, no matter how complicated the subject, with the powerful Refine Edge tool

206 The underrated Eraser tools
Create quick and effective composite images using the Eraser, Magic Eraser, and Background Eraser tools

210 Correct unwanted lens distortion
Use the new CS6- and CC-only filter to counteract even the most extreme unwanted effects of lens distortion

214 Photoshop's Transform tools
Discover how to distort, scale, rotate and even warp layer content with the Transform command's suite of tools

218 Photoshop's animation tools
Add motion to your still images and enhance HD video clips with animated, layered special effects



The healing tools

Master the Healing Brush, Spot Healing Brush, and Clone Stamp tools for speedy image tidying and flawless retouching

In this Tool School lesson, we'll look at the two healing tools: the Spot Healing Brush and the older Healing Brush. They're most commonly used to tidy up images, a task at which they excel. Whether you need to get rid of a sensor mark, hide an annoying landmark or remove imperfections on skin, the healing tools are the number one choice. Both brushes could be described as intelligent – they analyse the area you want to fix and come up with a solution of their own.

The Healing Brush works in a similar way to the Clone Stamp tool. Hold down Alt to target a source area, then use this region to paint over your imperfections. It's most effective when you target an area of similar tone and colour. For example, if you wanted to remove a pimple, hold down Alt and click a clean area next to the spot. Then paint over it and watch it disappear. The tool differs from the Clone Stamp tool in that it will automatically recognise the area you want to remove, and in most cases, match the tones and colours for a seamless fix.

The Spot Healing Brush was introduced in CS2 as the new and improved version of the Healing Brush. Unlike its older brother, there's no need to hold down Alt and define a source – you simply paint over the problem area and the tool performs a neat trick. This is one aid guaranteed to impress any non-Photoshop user who happens to be looking over your shoulder. A couple of clicks is all it takes to look like a retouching pro.

The Healing Brush gives greater control, but because the Spot Healing Brush doesn't require you to define a source, it's probably the more useful of the two. There is also a great feature called Content-Aware. This makes your fixes far more intelligent, as you'll see...

Perfect portraits with healing tools

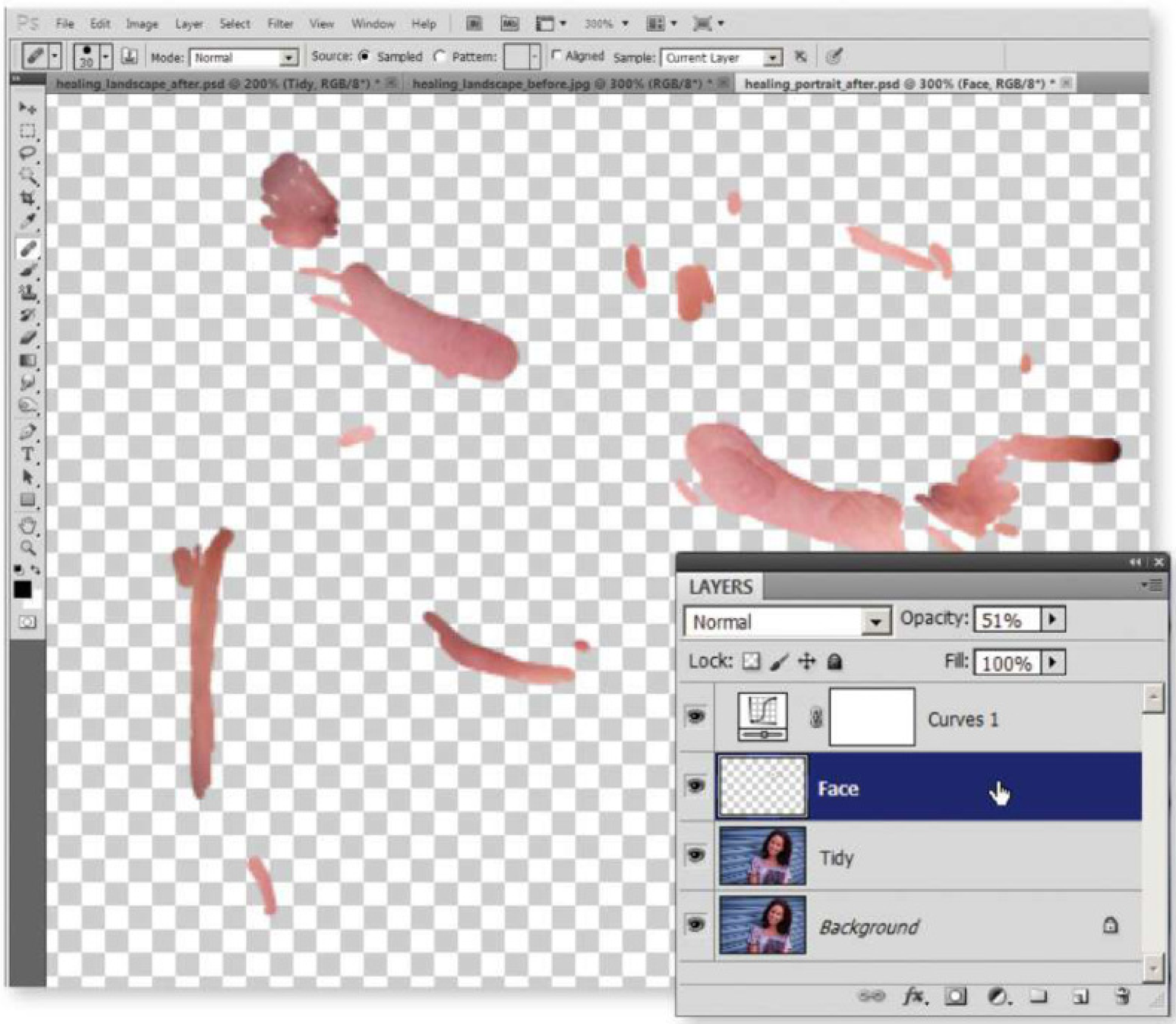
Eradicate skin problems, tone down bags under the eyes and de-wrinkle your subjects

The healing tools are most effective when you use them to remove marks or blemishes from clean areas. This makes them ideal for working over skin to get rid of pimples, tone down any unattractive lines and give your subjects a bit of polish.

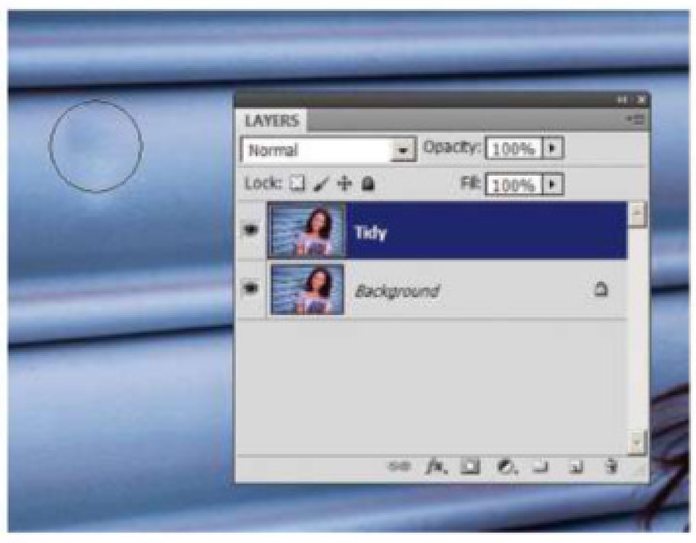
In fact, the tools perform so well that the temptation is often to go too far when retouching a face. Luckily, when you overdo it, you have the option to tone down your healing strokes, as long as you create a new, empty layer above your image layer, then check Sample All Layers in the Options bar. Once you've made your corrections, lower the opacity of the layer to make the effect more subtle.

The Spot Healing Brush feeds on nearby pixels to perform its miraculous fixes, so it's important that they're smooth, clean and low contrast. Try removing a stray strand of hair against a neutral background and the tool will do a grand job. But then try healing a grey strand in the thick of someone's hair. More often than not you'll get blotchy results.

With experience, you'll soon learn to recognise the areas where the tool will perform well, and also which ones to avoid.

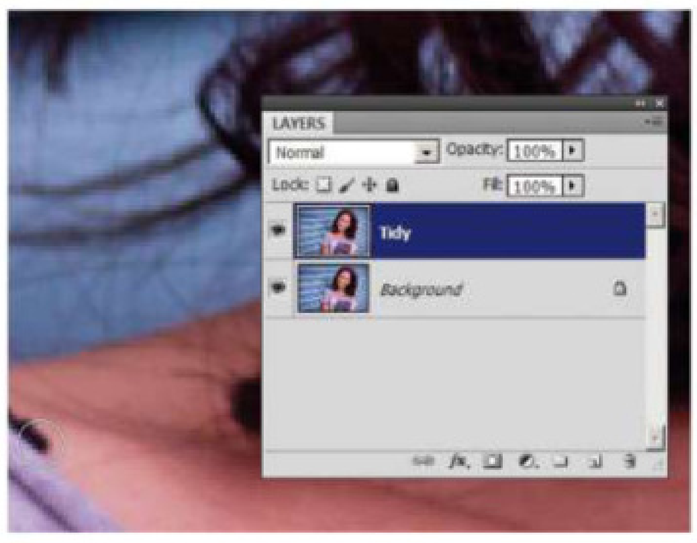


Remove blemishes



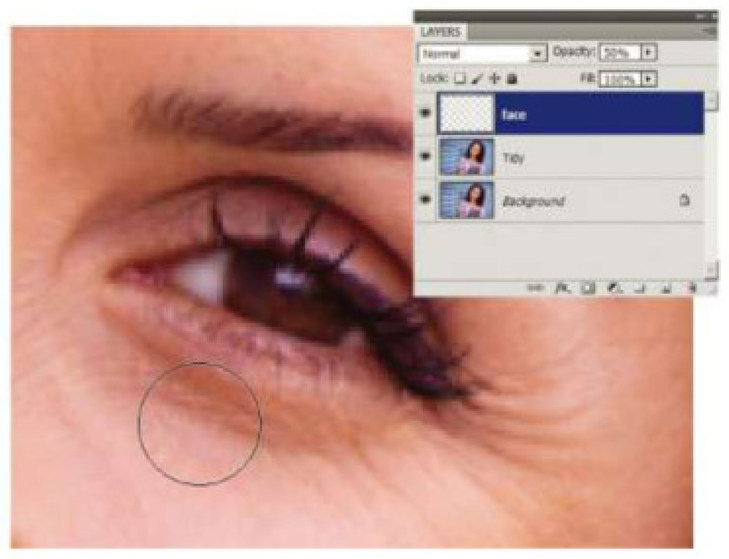
1 Duplicate background

Open a portrait and press Cmd/Ctrl+J to duplicate your Background layer. Rename it 'Tidy'. Select the Spot Healing Brush and dab over areas needing a fix. Use the square bracket keys to resize your brush as you work.



2 Start healing

Switch to the Healing Brush to work on edge areas that need more control. Hold down Alt and define a source similar to the area you'd like to fix, then paint over it. Then go to the Layers Panel and click Create new layer to get a new layer.



3 Sample all layers

Switch to the Spot Healing Brush, then go to the Options bar and check Sample All Layers. Zoom in and paint around any blemishes you want to remove. Afterwards, reduce the opacity of your new layer to 50% to fade the effect.

Get clever with Content-Aware

Tidy-up jobs are quicker and more effective with the Content-Aware healing feature

Spot Healing has been vastly improved with the new Content-Aware feature. This is now the default healing mode in the Options bar, as opposed to Proximity Match or Create Texture.

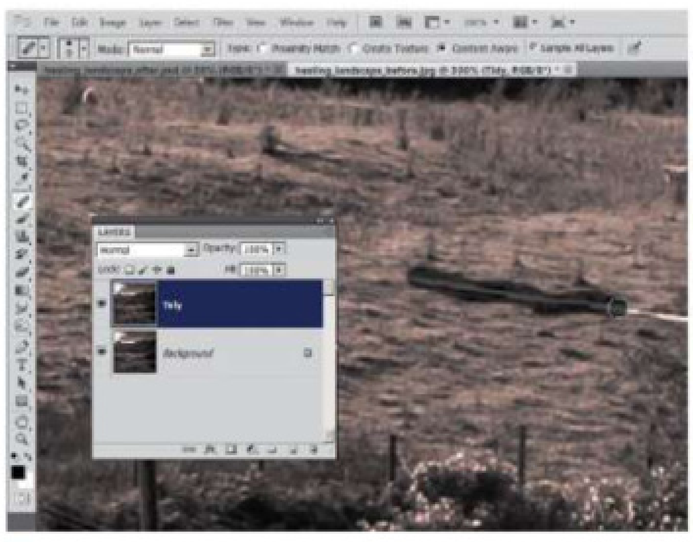
In previous Photoshop versions, the Spot Healing Brush worked brilliantly for fixing imperfections in smooth areas, but if you attempted to correct something near an edge you soon saw its limitations. With Content-Aware selected, the tool now performs with far greater intelligence. If you try healing a large area, the brush may take a few seconds to come up with a solution. This is because it's analysing data around your entire image, not just the part you're painting over.

The corrections are usually excellent, but even if they're not perfect, they give a good starting point from which you can zoom in with the Clone Stamp or Patch tools to fine-tune. Experiment with the tool by removing people or big objects from images. The results are difficult to predict but are often surprisingly effective.

Content-Aware healing is brilliant at removing distracting elements. We've used it here to erase a car, telegraph poles and wires. They needed nothing more than a few strokes to remove.



Tidying up a scene



1 Copy the landscape

Open a landscape containing elements you want to remove. Press Cmd/Ctrl+J to duplicate your Background layer. Rename this 'Tidy'. Use the Spot Healing Brush to paint over the distracting elements, resizing the brush with [and] as you go.



2 Zoom in

When you've erased the smaller distractions, zoom in on a big one, such as this car. Paint over the entire area with the Spot Healing Brush, then decrease the size of your brush to dab over areas where the initial heal has failed to work.

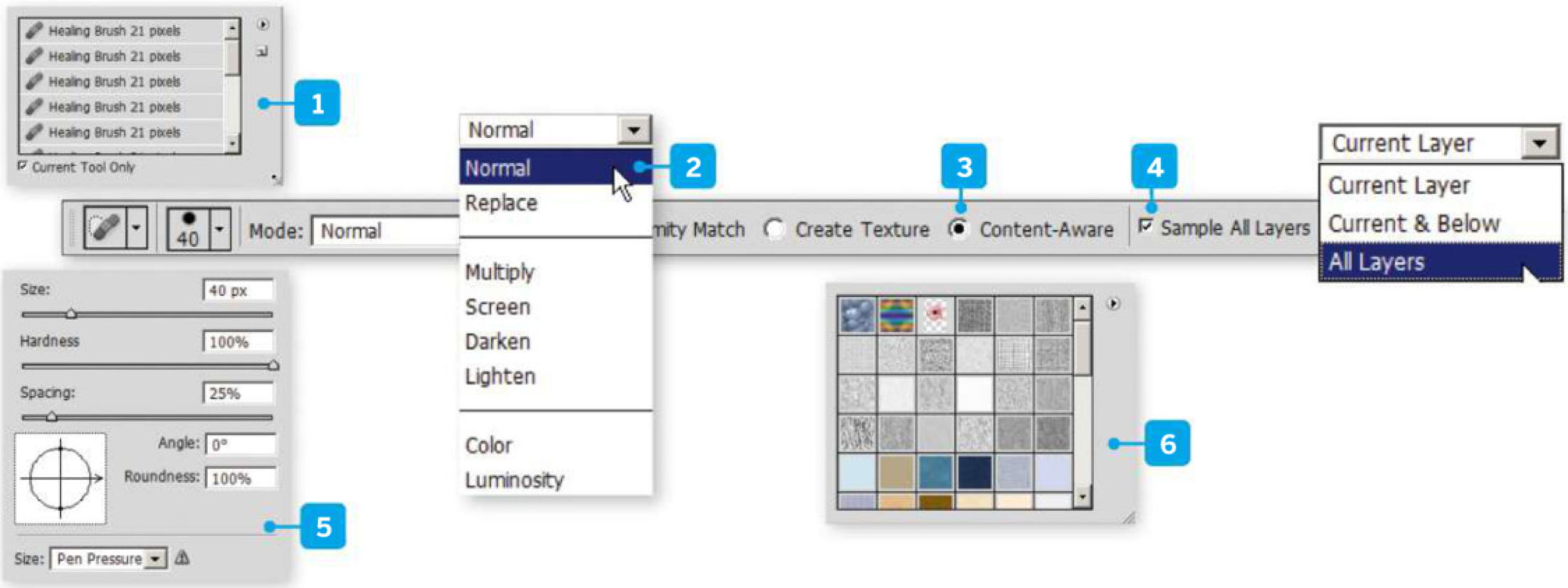


3 Bring back detail

Switch to the Healing Brush. Hold down Alt and target a joining area – where grass meets road in this image. Dab along the road edge to bring back detail. If necessary, use the Clone Stamp and Patch tools to fine-tune the region.

Photoshop Anatomy Healing tools

These tools are fully customisable and there are plenty of options to experiment with



1 SETTING DEFAULTS

Use the Tool Preset Picker to save the characteristics of the healing tools, such as a certain size brush, opacity or Blend mode.

2 CHANGE THE LOOK

Use the Effect Mode drop-down menu to choose different blends for your Spot Healing Brush tool. This alters the pixels that show through when you paint.

3 TYPE OPTIONS

Proximity Match is the older mode that used to be the Spot Healing Brush's default setting. In CS5, it's changed to the superior Content-Aware feature.

4 TEST IT OUT

Sample from a combined source of All Layers or your Current Layer. Current & Below is useful when you want to carry out editable healing on a new blank layer.

5 CUSTOMISE THE BRUSH

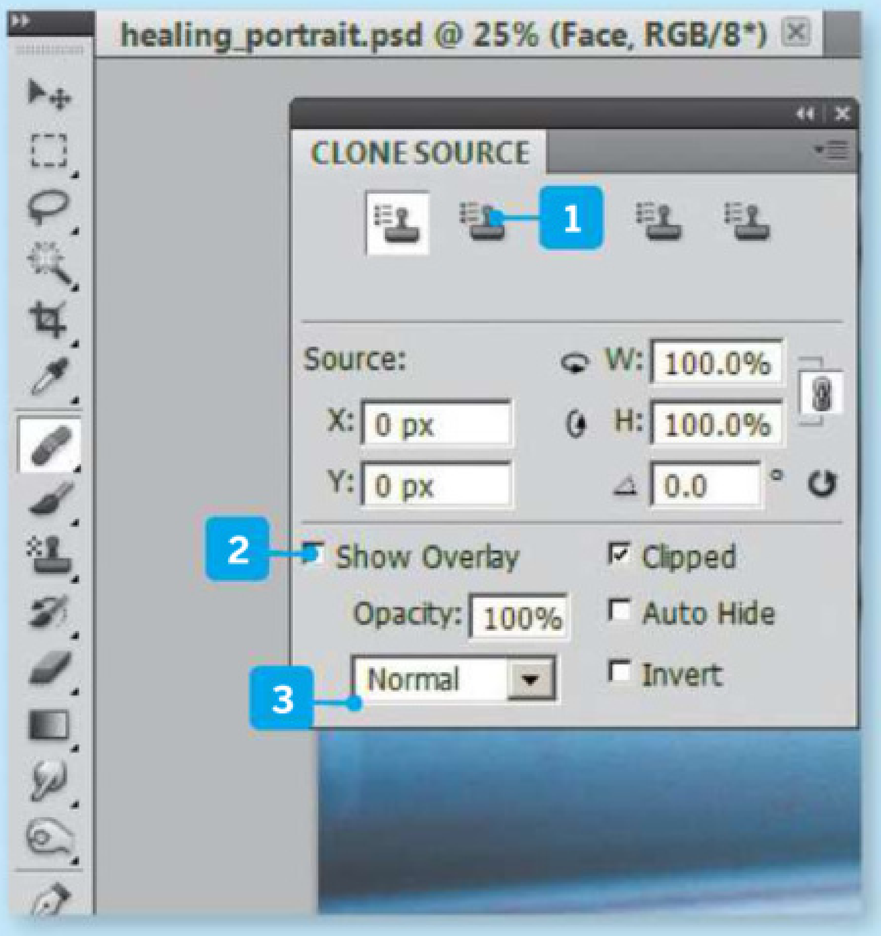
Move the slider to alter the size, hardness and spacing of your brush. In most cases, a soft-edged tool works best.

6 SELECT PATTERNS

Choose Pattern to sample pixels from a pattern. Load in different patterns by clicking the play icon in the top right-hand corner.

Understanding... THE CLONE SOURCE PANEL

The Clone Source Panel allows you to change the characteristics of the Healing Brush tool and the Clone Stamp tools. The five stamps placed along the top of the panel **[1]** allow you to set up to five different sample sources. This means that you can quickly select one of the five and there's no need to resample a source by clicking Alt within your image. You can also choose whether or not to view an overlay of your sample source within your brush tip by checking the box next to Show Overlay **[2]**. Change the Blend mode of your healing tool to paint with different colour transparency effects **[3]**.



THREE TOOLS FOR SUPERB RESULTS

The two healing tools are powerful enough to give you superb results, but they occasionally slip up around areas of detail. When this happens, just hit S to switch to the Clone Stamp tool, then hold Alt to define a source. Used together, the three tools constitute a formidable retouching team. The Clone Stamp tool might not be as clever as the healing ones, but it does make it far easier to predict what your strokes will do. On portraits, the Clone Stamp tool works best when set at a low opacity of about 20%. This allows you to build up your brush strokes and vary your target source for seamless blending. ■





The selection tools

Master the Quick Selection and Magic Wand tools to make detailed extractions from your images

In this Tool School lesson, we take a look at the many applications of the Quick Selection and Magic Wand tools. From replacing dull backgrounds to making faster selective adjustments, these nifty Photoshop devices will help you enhance your images and speed up your selection workflow.

The Quick Selection and the Magic Wand tools select pixels based on colour and tonal similarity, so they share the same Toolbox compartment. However, like any double act they have their own individual strengths. To start making a selection with the Magic Wand tool, you simply click an area to sample it. The tool will then select similar pixels based on the colours and tones that you first clicked.

By brushing the more intelligent Quick Selection tool over your subject, it will create a more complex selection marquee that attempts to include the subject's relevant details. In both cases, you can then use the Add to Selection and Subtract from Selection icons in the Options bar to refine your marquee even more.

The Quick Selection tool is best suited to selecting a single subject – for example, a person standing against a busy backdrop. Once you've made your selection, you can use the Refine Edge option to tweak its edge, turn it into a layer mask, or create an accurate cut-out.

The Magic Wand tool is great for ferreting out every bit of background sky, including those pixels hiding between the branches of a tree. You can modify its Tolerance so it selects a wider or narrower range of pixels with each click. This adjustable sensitivity is very useful. An evenly coloured and toned sky can be selected using a low Tolerance value. A more complex sky that features different colours and tones will need a higher Tolerance setting to select all of it.

Unleash the power of the Magic Wand tool

Select every bit of unwanted background with ease

Some shots – like our Bonsai tree here – have coloured backgrounds that you may want to select and replace. When set up correctly, the Magic Wand tool can tackle these sorts of selection challenges in just a few clicks.

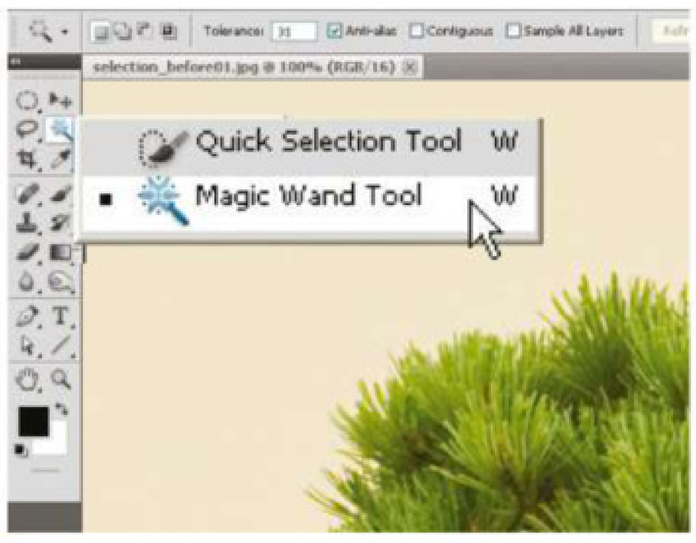
As well as the New Selection option that gives you a basic marquee, there's also Add to Selection and Subtract from Selection. When zoomed in to your image, these incredibly useful tools will fine-tune your marquee, particularly around edges and in detailed areas.

Although small and seemingly insignificant, the Sample All Layers tick box shouldn't be overlooked. This facility ensures that your selection includes similar pixels on multiple layers, and not just the one currently targeted in the Layers panel.

If there are any patches of unwanted background sky hiding among the leaves and branches, then you'll need to clear the Contiguous box. This lets the Magic Wand tool off its leash, so it can track down the sampled colours in every part of the image. The final way to make the tool even more precise is with the Refine Edge button. This opens a new window with multiple options for feathering, smoothing and even shifting the marquee.

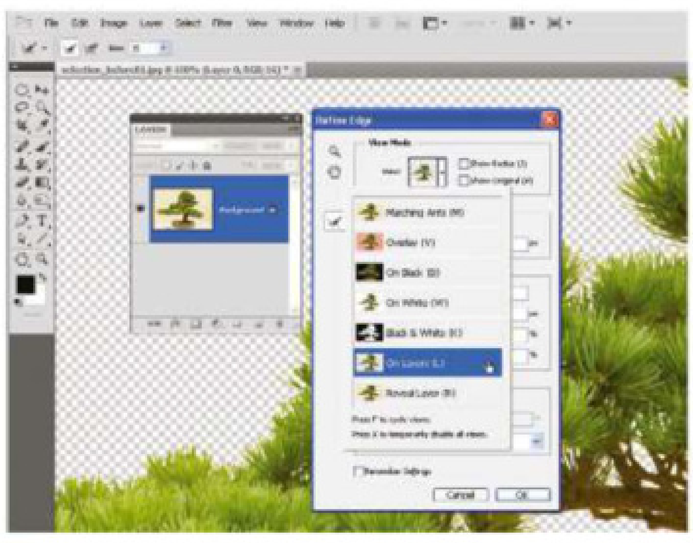


Get rid of unwanted backgrounds



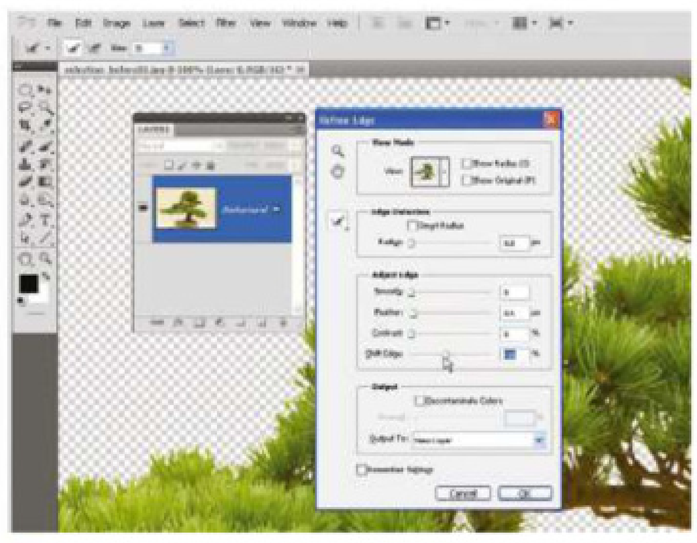
1 Choose your tool

Open an image you want to make a selection in. Grab the Magic Wand from the Tools Panel. Press W to toggle between it and the Quick Selection tool. In this image the background is evenly lit, so you'd leave the Tolerance on 31. Clear Contiguous.



2 Click to sample

Click any patch of background. The selection marquee should appear around all of that colour, even if it's in the branches. Choose Select›Inverse to select the tree. Click Refine Edge. Set the View drop-down menu to On Layers.



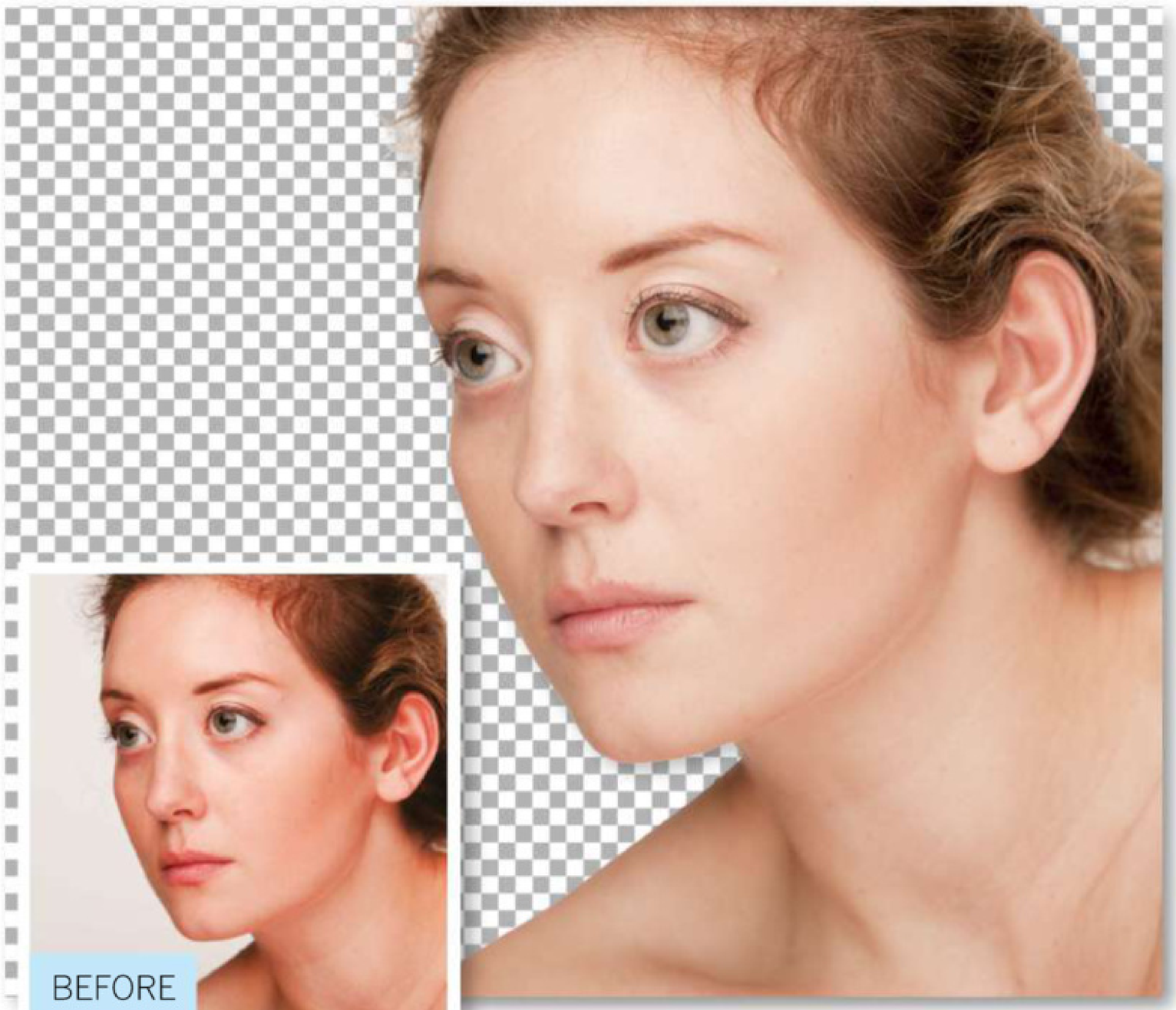
3 Delete the selection

The leaves are looking a little sharp and 'cut-out'. To soften things, set Feather to 0.5 pixels. To remove any background sky pixels clinging to the edge of the tree, drag Shift Edge to –16%. Set Output to New layer and click OK.

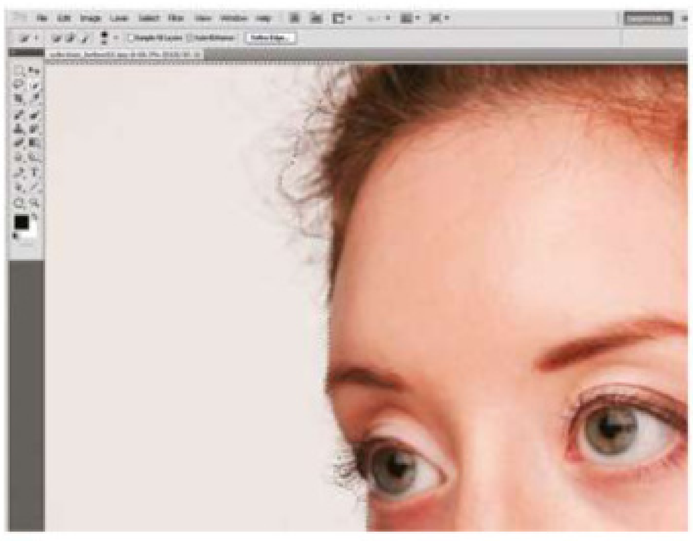
More advanced selections

Discover how to add fine details to your selections, like wispy hairs and eyelashes

The intelligent Quick Selection tool can work out what subject you're trying to select as you paint over it. If it does get confused, you can call on the help of the Add To and Subtract From icons in the Options bar to fine-tune the selection. Clever though it is, the Quick Selection tool can sometimes find it difficult to locate the edges of your subject. This is especially true if there's minimal contrast between the subject and the background, or if there's any softness to your subject caused by a shallow depth of field. It will also find it a challenge to include delicate edge details like hair and eyelashes – even if they are overlapping a uniformly plain white studio backdrop! For this portrait shot, we ran the Quick Selection tool over the white background and then inverted the selection so the marquee was around the model. However, by zooming in for a closer look at the selection we could clearly see that the marquee didn't include the model's eyelashes or her out-of-focus wispy hairs. So we used the Refine Radius tool to add these details to the selection. We then turned the refined selection into a layer mask so we could fine-tune it by applying brush tips to hide or reveal relevant details.

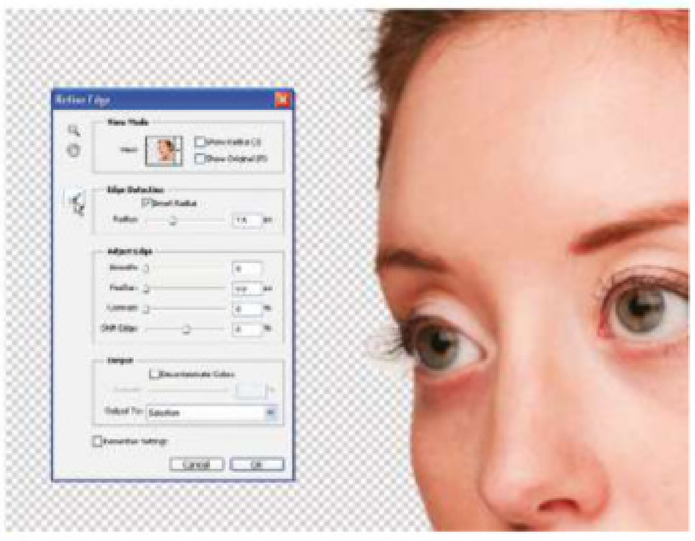


Including fine details in a selection



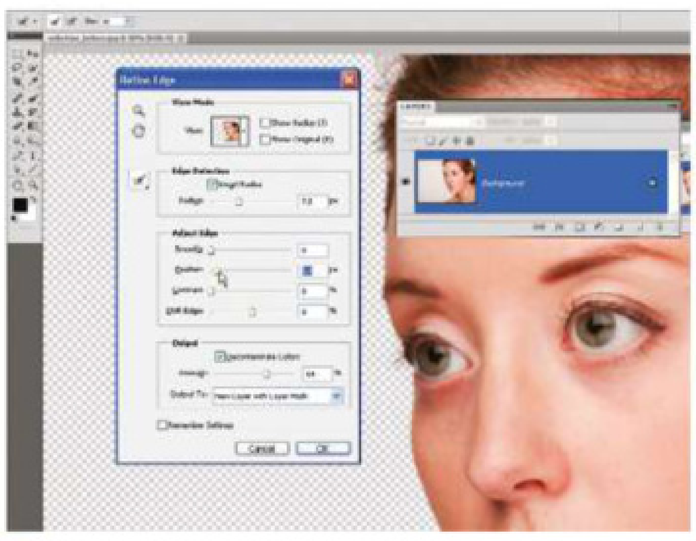
1 Create a selection

Open a portrait shot against a clean background. Use the Quick Selection tool to paint over the background. Tick Subtract from Selection and paint over the hairs. This creates a rough selection that also includes background pixels.



2 The Refine Edge tool

Hit Select›Inverse. Click Refine Edge and set View Mode to On Layers. To restore hairs and hide background pixels, tick Smart Radius. Slide it to 7.5. Tick the Refine Radius tool icon. Set Size to 60. Paint over edge hairs.

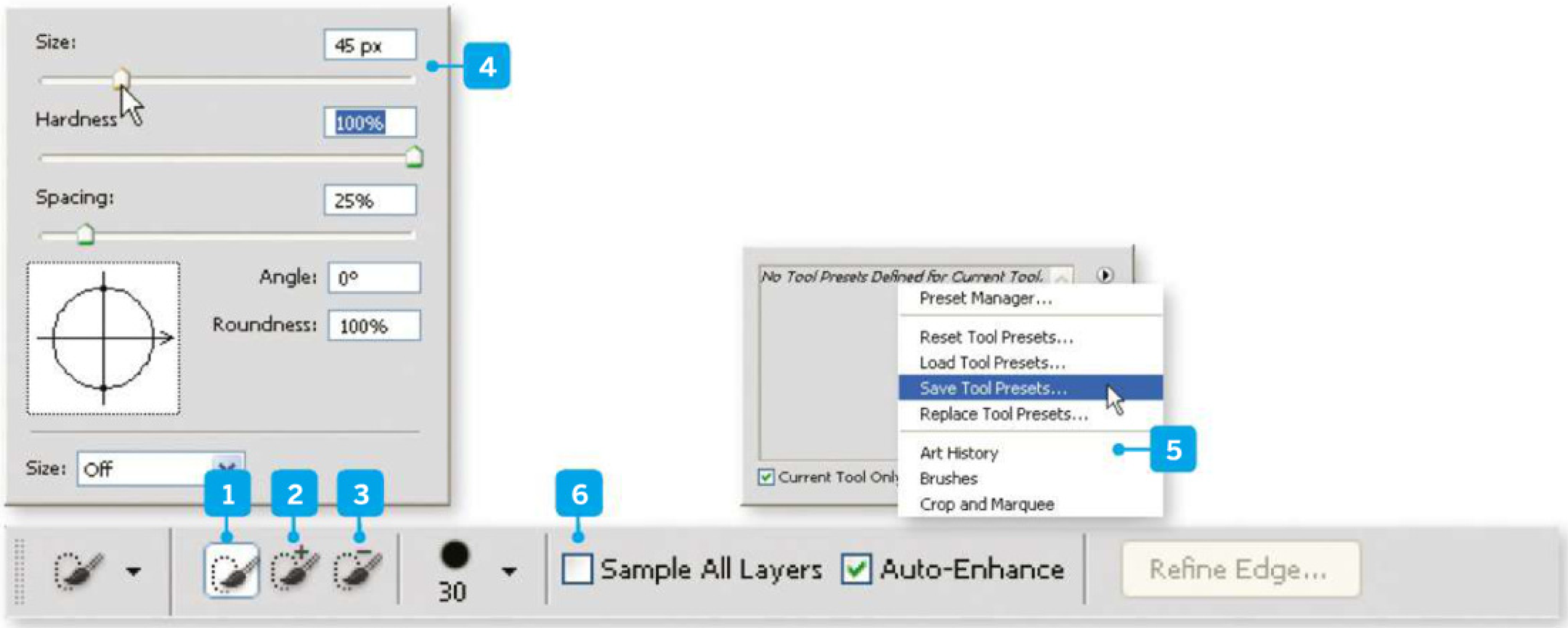


3 Fine-tune the selection

Set Contrast to 39. For a smoother selection, set Smooth to 10 and Feather to 1.4. Tick the Decontaminate Colors box and set Amount to 64%. Set Output to New Layer with Layer Mask and click OK.

Photoshop Anatomy Quick Selection

There's a vast array of options at your disposal to create fast and accurate selections



1 NEW SELECTION

Creates a selection marquee independent of any previous selections you may have made. With this highlighted, you can begin brushing over your subject.

2 ADD TO SELECTION

Once you've created your initial selection, the Quick Selection tool will automatically change over to this option that allows you to add further areas.

3 SUBTRACT FROM SELECTION

Enables you to remove unwanted areas from your selection. Select it directly from the Options bar, or hold down Alt to activate it.

4 BRUSH PICKER

Gives you access to options such as Diameter, Hardness, Spacing and Shaping that will customise the brush tip of the Quick Selection tool.

5 TOOL PRESET PICKER

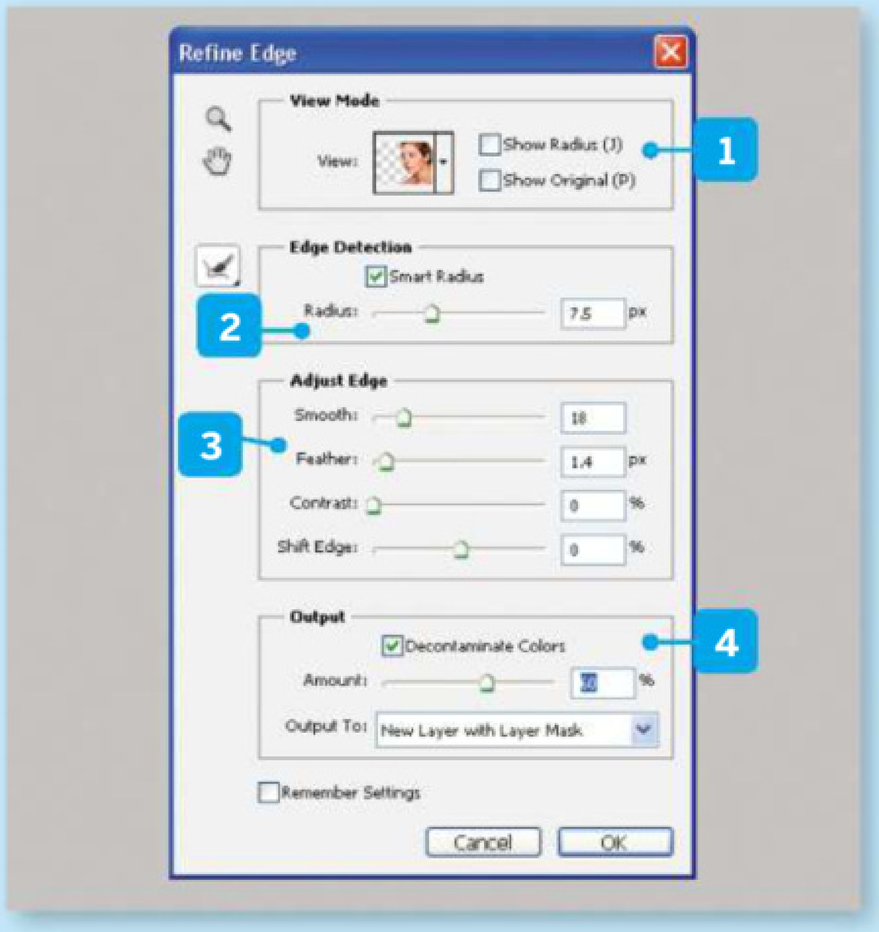
The Quick Selection tool has no presets, but you can save your own for use on other images at a later date. Add tools with characteristics that can be saved.

6 SAMPLE ALL LAYERS

Check the box to sample pixels from all layers in the document; uncheck it to sample pictures only from the currently selected layer.

Understanding... REFINE EDGE

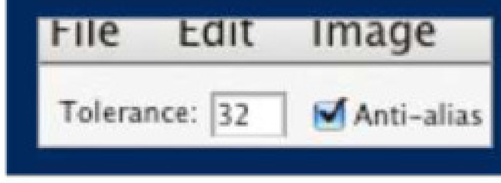
The Refine Edge button will give you a variety of choices for improving the work you've already done with the Quick Selection tool. The options found under the View Mode **[1]** heading will change how your selection looks in the main window. Edge Detection **[2]** is a recent introduction to Photoshop, and has several ways to select fine detail, such as fly-away hairs. This is a great way to effectively make a composite of your subjects onto new backgrounds, too. The Adjust Edge **[3]** options make sure that your marquee has no rough edges or other tell-tale signs that you've created a selection. The Output **[4]** heading contains several preferences for how to present your final edited selection, such as with a layer mask or as a new document. Click OK to finalise the selection.

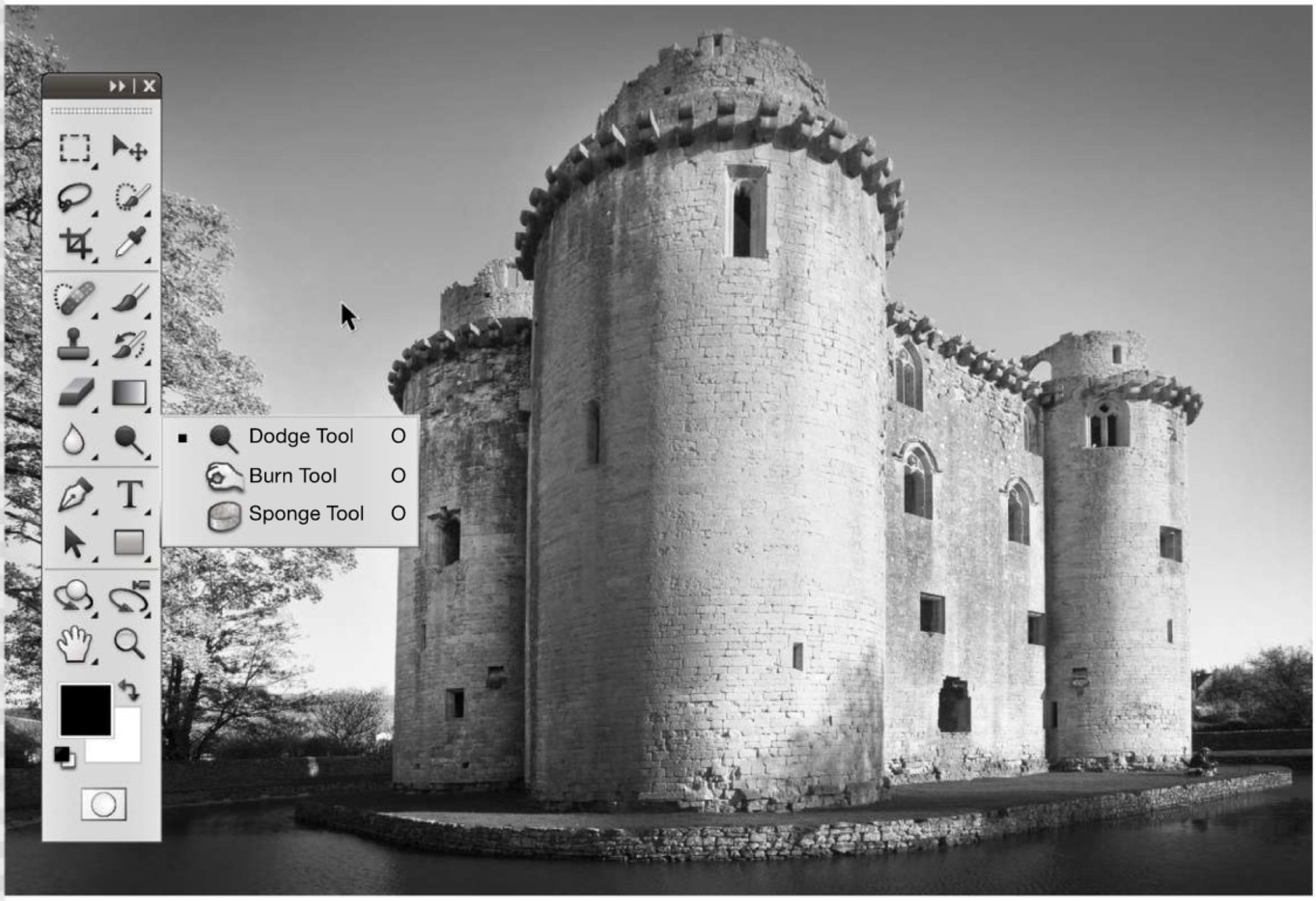


CHANGE THE SENSITIVITY

If the unwanted background areas of your image are fairly even in their colour and tone, then the default Tolerance setting of 32 should be sensitive enough to include every last part of it. However, if the background features a range of similar colours, like in a gradated sky, for instance, then increase the Tolerance value.

If you find that you end up selecting bits of your main subject as well, press Cmd/Ctrl+Z to undo the last selection that you made and choose a lower Tolerance setting. To make a smoother selection, keep the Anti-alias box ticked.





Dodge and Burn

Get to grips with these versatile tools to tweak the tones of your photographs with precision

In this Tool School, we look at the versatile Dodge, Burn and Sponge tools. These useful brush-based tools let you lighten (dodge) or darken (burn) shadows, midtones or highlights in specific areas, offering a quick and easy way to fine-tune exposure-related problems and reveal more detail. We'll come back to the Sponge tool in due course, because it's not a major player compared with the Dodge and Burn tools.

The Dodge and Burn tools take their names from traditional darkroom techniques. Negatives were developed by shining light from an enlarger onto a piece of light-sensitive paper. If you placed a small object between the light and the paper during the exposure, you could cast a shadow on a specific part of the print. Since the shaded (dodged) area received less light than the rest of the shot, it would remain lighter. To darken (burn) detail in a different part of the print, you needed to protect – or mask – the rest of the photo paper with a piece of card. The longer exposure time would darken the unmasked region.

Cameras use multiple points to assess, or meter, the scene's lighting. If you shoot a person against a bright sky, the camera may set the exposure to capture detail in the brighter areas, so the (darker) person will be under-exposed. Alternatively, the camera may expose a landscape to capture detail in the terrain, over-exposing the brighter highlights and blowing out sky detail. You may find that atmospheric conditions cause distant features such as mist-diffused mountains to become washed out. The Dodge and Burn tools let you target and tweak problematic areas to reveal more tonal detail, without adjusting the exposure of the scene as a whole. The Dodge and Burn tools share a toolbox compartment with the Sponge tool. Here's how to use them...

Combining Dodge and Burn with layers

Use layer blends to help you employ these powerful tools in a non-destructive way

Like many Photoshop tools, the Dodge, Burn and Sponge tools are brush-based. This means you can use the Brush Preset Picker to soften their edges, more effectively blending edited areas with their neighbouring pixels.

You can also change the size of each tool's tip to make it act upon a larger region, or fine-tune a smaller section, with precision. You can also use the Options bar in order to customise the way the Dodge and Burn tools behave.

If you want to use the Dodge tool to lighten an area's midtones without over-exposing its highlights – like on the wall in our monochrome landscape, for example – then go to the Options bar and set the Range in the drop-down menu to Shadows. This will force the Dodge tool to lighten the darkest shadow pixels, but leave the lighter midtones and highlights untouched.

When you use the Dodge and Burn tools, you permanently change the contents of the image.

In the step-by-step tutorial below, we show you how to dodge and burn a landscape image on a separate layer, which will give you the freedom to experiment without permanently lightening or darkening the tones on the original shot.



Dodge and burn non-destructively



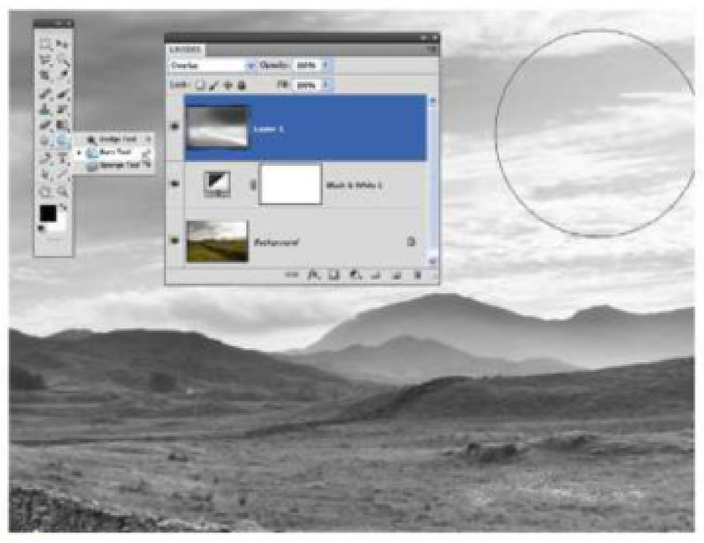
1 Fill with grey

Open a landscape image with exposure problems. Choose Layer›New Adjustment Layer›Black & White. Click the Create new layer icon. Choose Edit›Fill. Use 50% Gray, and click OK. Now set the grey layer's Blend mode to Overlay.



2 Lighten the landscape

Select the Dodge tool. Set Size to 300, Range to Midtones and Exposure to 25%. Click the Overlay layer, then paint over the landscape to lighten its midtones. The low Exposure setting lets us dodge the landscape in finer increments.



3 Darken the sky

Select the Burn tool. Set Size to 700, Range to Highlights and Exposure to 30%. Paint over the sky to reveal some of the over-exposed highlight detail. Switch between the Dodge and Burn tools to lighten or darken particular features.

Retouch a portrait

Use the Dodge and Sponge tools to correct flaws and create brighter eyes

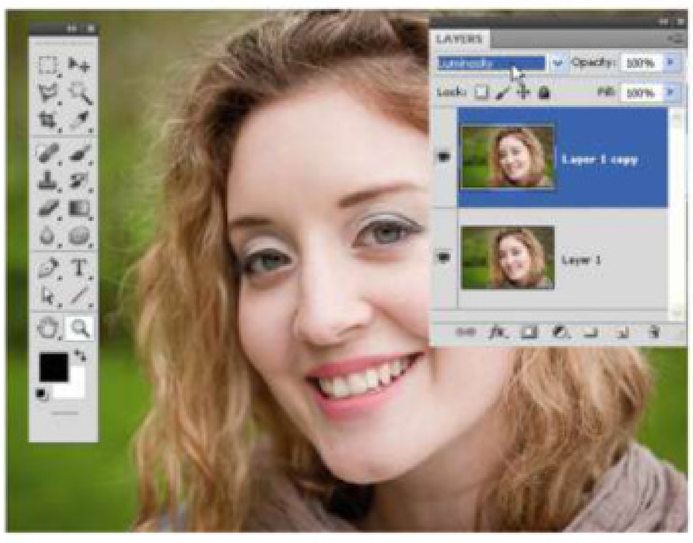
As well as enabling you to bring out the shapes and textures in a monochrome landscape, the Dodge and Burn tools can help you enhance a portrait. In this step-by-step guide we'll show you how to draw attention to the subject's eyes by dodging their whites to make them brighter. You'll also learn how to create a more attractive smile by lightening the subject's teeth.

When dodging bright highlights, you risk creating blown-out – or clipped – areas that feature no detail. You can also create unsightly shifts in colour and exaggerate colours you don't want to see, such as red blood vessels in the subject's eyes. The Protect Tones box in the Options bar is designed to help reduce clipping, but if you dodge directly onto the image layer then clipping and exaggerated colours can still occur.

In our step-by-step guide we'll show you how to limit the Dodge tool so that it lightens tones, but leaves colours untouched. To do this, you need to dodge onto a copy of the original layer. By setting the duplicate layer's Blend mode to Luminosity, you'll only see changes in brightness, and the colours will be left unchanged.

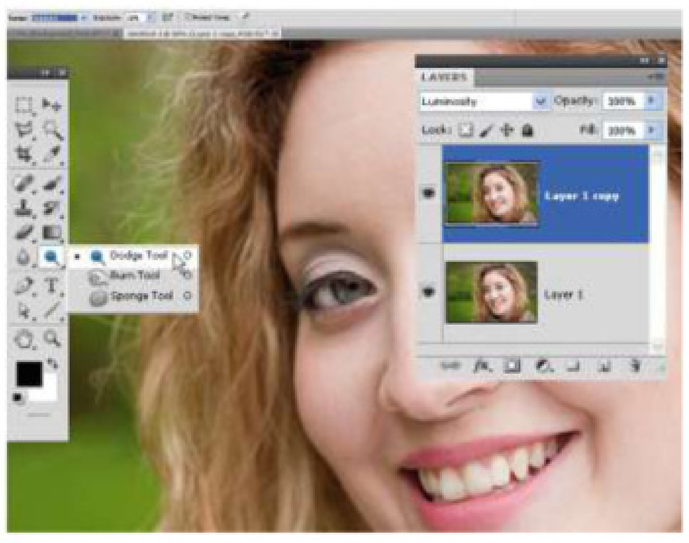


Brighter eyes



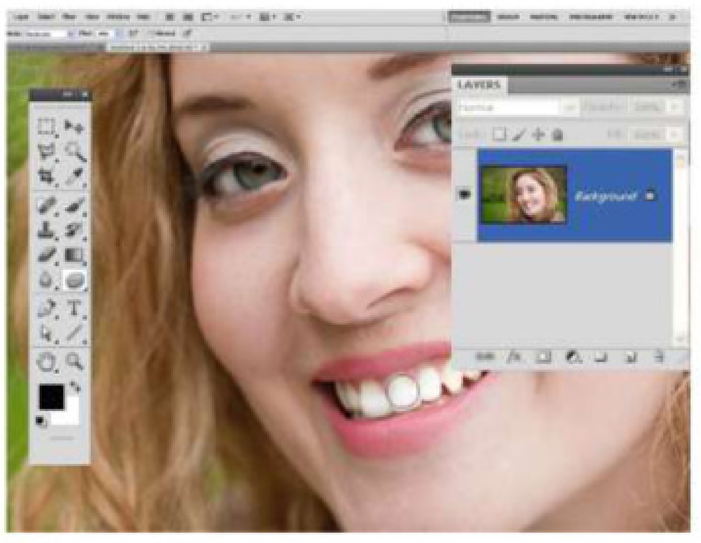
1 Duplicate the layer

Open one of your portraits. In the Layers panel, drag the Background layer onto the Create a new layer icon to duplicate it, then set the Background Copy layer's Blend mode to Luminosity using the drop-down menu at the top of the Layers panel.



2 Lighten the highlights

Grab the Dodge tool and choose a soft round brush with a Size of 100. Set Range to Highlights and Exposure to 11%. Click the Background Copy to target that layer. Paint a few strokes over the eyes to lighten them.

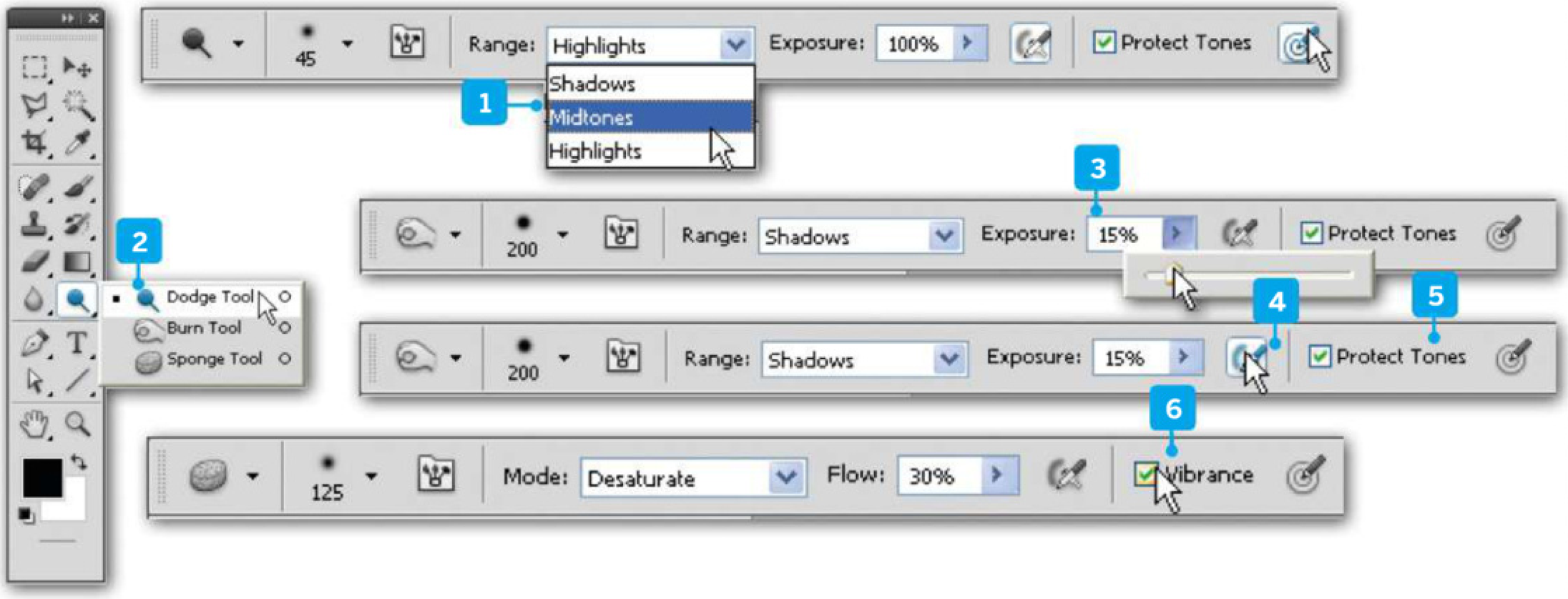


3 Whiten the teeth

Drop Exposure to 5% and paint to lighten the teeth. Then choose Layer›Flatten Image. Grab the Sponge tool and set Mode to Desaturate and Flow to 40. Set the brush size to 125 and paint over the teeth to remove the stains.

Photoshop Anatomy Dodge, Burn & Sponge

Tweak tones with more precision by modifying the behaviour of these brush-based tools



1 RANGE

You can get the Dodge and Burn tools to work with specific tones by choosing Shadow, Midtones or Highlights from the Range drop-down menu.

2 TOOL COMPARTMENT

The Dodge, Burn and Sponge tools are a tone-tweaking team, so they share the same compartment in the Tools Panel. Press Shift+O to cycle between them.

3 EXPOSURE

By using a low Exposure setting, you can dodge or burn in smaller increments. This helps you avoid going over the top with your tone tweaking.

4 AIRBRUSH MODE

This mode enables you to use a pressure-sensitive stylus to vary the exposure when dodging and burning. It works with the tablet's pressure settings.

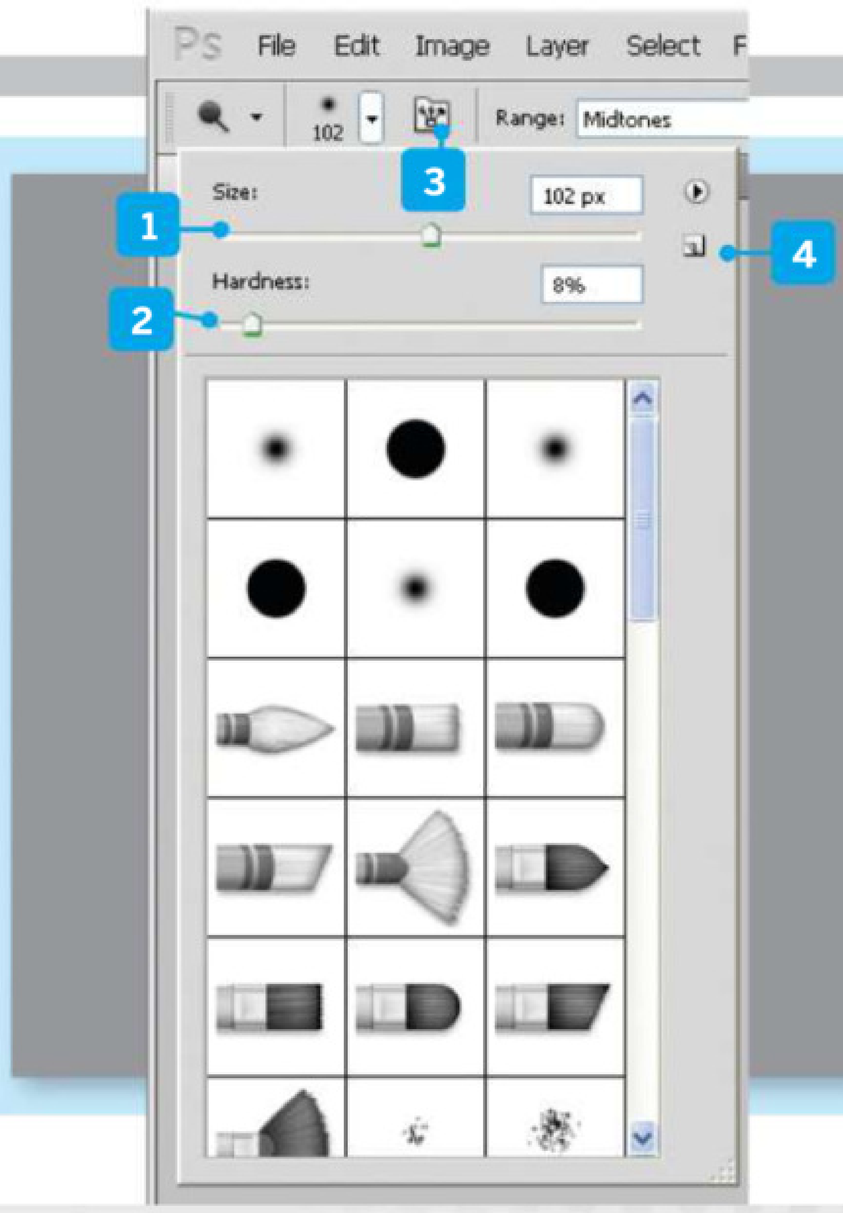
5 PROTECT TONES

Keep this box ticked to help minimise the amount of clipping and hue changing produced by the Dodge and Burn tools.

6 VIBRANCE

This is a Sponge tool option. It stops the tool from over-saturating colours that are already vibrant; it will only alter weaker colours.

Understanding... THE BRUSH PRESET PICKER



You can increase the size of the Dodge, Burn or Sponge tools **[1]** to cover wide areas like a sky quickly, or tweak smaller areas like teeth with precision. To help the edited pixels blend more effectively with their neighbours, drag the Hardness slider **[2]** to the left. This creates a brush that produces a more gradual soft-edged adjustment. If you click this icon **[3]** you can preview the edited brush tip's shape in the Brushes Panel, and check how soft or hard its edge is. If you want to preserve and reuse a particular combination of Size and Hardness, click the New Preset icon **[4]**. You can then give your brush a name (such as 'Tooth Brush'). You'll find the saved tip by scrolling to the bottom of the Brush Preset picker.

APPLYING GLOBAL TONE CHANGES

Before you begin to use the non-destructive dodging and burning technique demonstrated in our step-by-step guide here, use Layer>New Adjustment Layer>Levels to tweak the overall range of tones in the image. A healthy monochrome print needs a strong contrast between the darkest shadows and the brightest highlights, or it will look too grey and flat. In the Levels command window, drag the black input levels slider right to the edge of the histogram graph to darken the blackest shadows. Drag the white input levels slider left to the other edge of the graph. This will help the landscape's lighter details stand out even further, and increase the contrast of the image as a whole.



The crop tool

Maximise the potential of your photographs by cropping them to improve their composition

In this Tool School, we look at the Crop tool. This tool has a lot to offer when it comes to making shots look their best. It enables us to remove or crop the edges of a photo to create a new composition or take out unwanted objects at the edges of the frame, much as a traditional photographer would use a guillotine to trim photos after printing them.

When shooting on location, we may not have enough time to think about the best way to compose a scene, especially if we're rushing from A to B. The Crop tool enables us to reframe the photo's subject matter at our leisure.

As well as removing distracting objects, the Crop tool also allows us to correct common mistakes. For example, when shooting with the camera tilted at an angle you'll create an uneven horizon. This can be as annoying as seeing a picture hanging lop-sided on a wall. We'll demonstrate how to use the Crop tool to make the horizon run parallel with the top and bottom of the frame. When preparing a shot for printing, it can be a challenge to get a cropped shot to have the same shape – or aspect ratio – as the other uncropped shots from your camera. This can be irritating if you want to include the photo in a gallery with non-cropped prints. We'll show you how to constrain the Crop tool to make the cropped image have the same shape and proportions as the original. We'll also get the Crop tool to resize a shot so that it prints out with specific width and height dimensions and fits into a standard off-the-shelf picture frame.

The Crop tool is located in a compartment at the top section of the Tools panel, which reflects its status as a frequently used item. It shares this compartment with the less useful Slice tools, which are designed to help web designers chop up a Photoshop document.

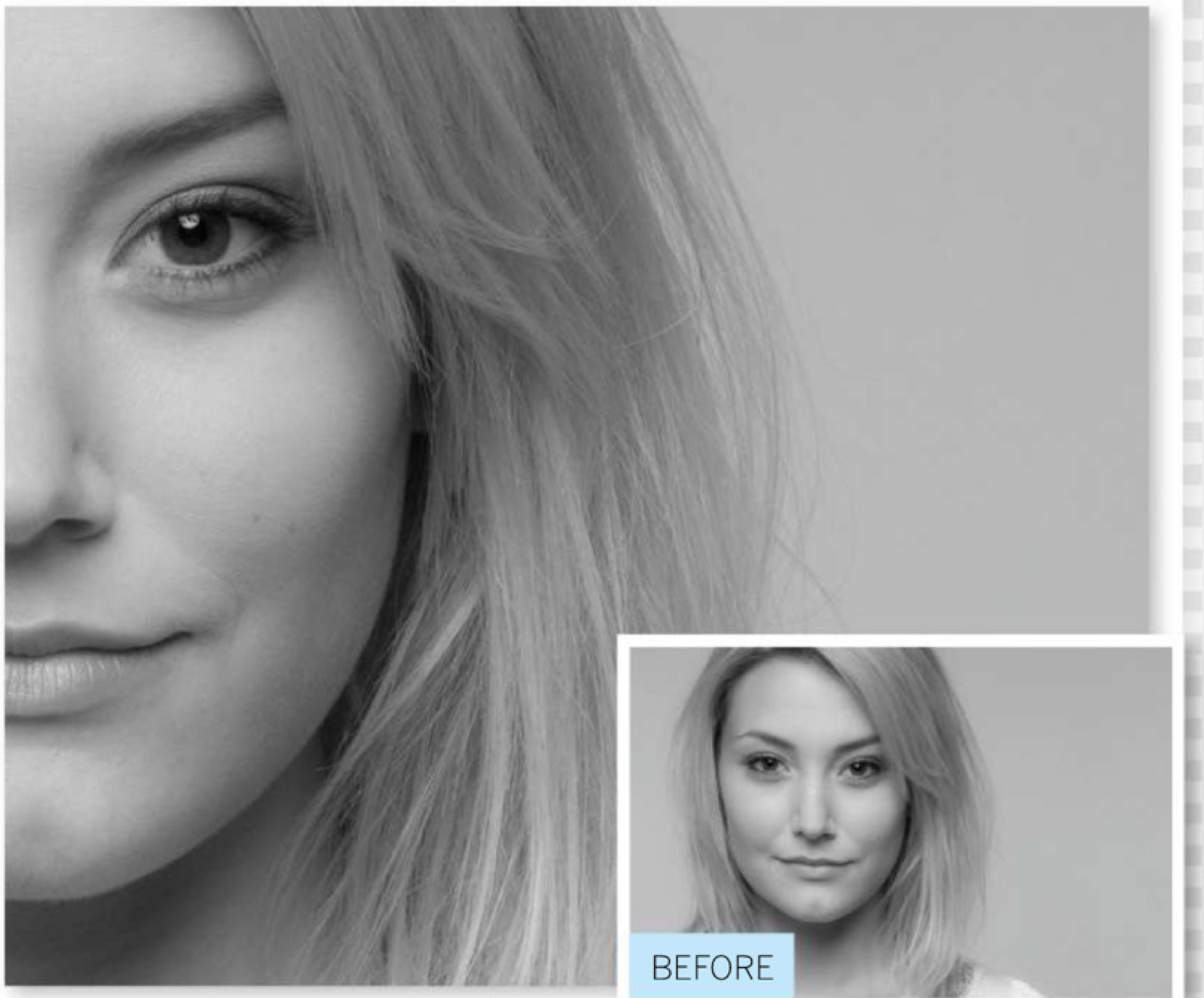
Improve composition

Discover how to use the Crop tool's Overlay function to produce well-framed shots

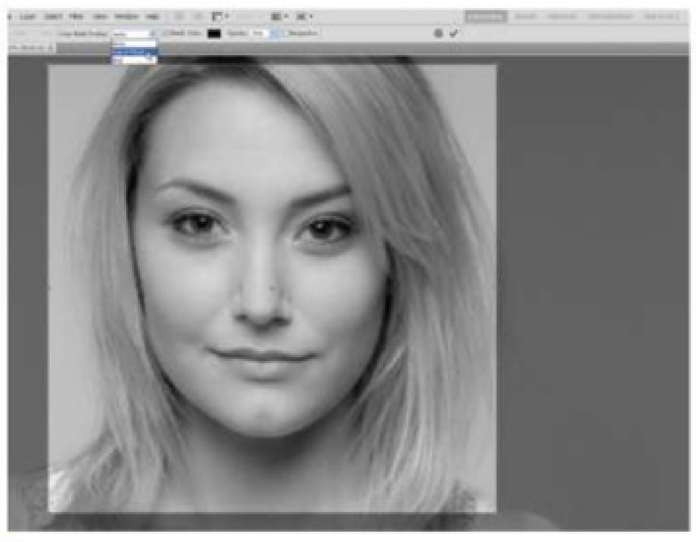
Sometimes we might flick through a series of shots and only a few will stand out as being of any real worth. The odds are that the more aesthetically pleasing shots will conform to the rule of thirds. This is an artistic technique that involves separating the frame into nine equally sized boxes using a grid. By placing certain subjects in these boxes, or getting the grid's intersecting lines to overlap specific objects in the scene, you can create a more pleasing and balanced composition.

For example, you could have a hill in the bottom third of the screen, a tree in the middle third and sky at the top.

The tree could also overlap intersecting horizontal and vertical grid lines at the left of the frame, as in this feature's main image on the previous page. Professional photographers like David Bailey zoom in to frame their shots and crop out the top of their subject's head, producing a tighter and more intimate-looking portrait. We can creatively crop a conventionally framed portrait to make a more eye-catching version with a square frame. We'll show you how to combine a constrained aspect ratio with the Crop tool's rule of thirds overlay grid to create an aesthetically pleasing portrait.

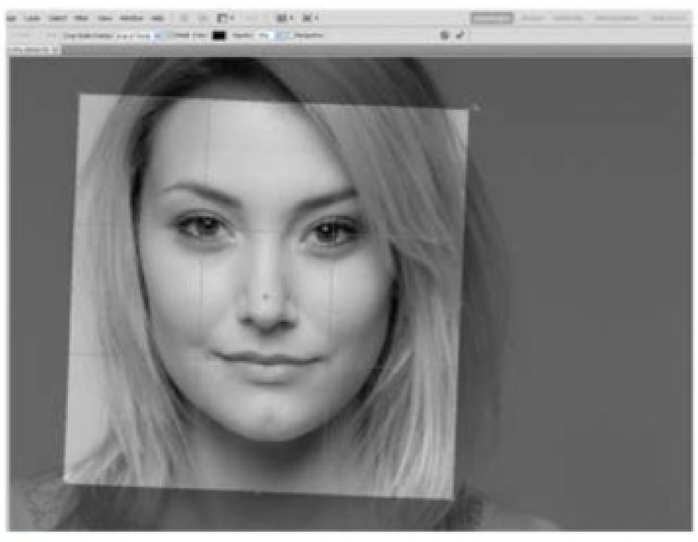


Use the rule of thirds overlay



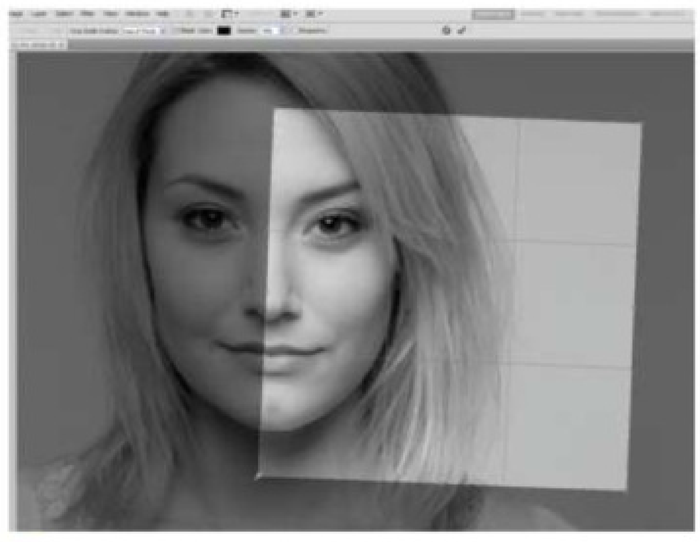
1 Draw a square

Open a standard portrait. Grab the Crop tool. Hold down Shift to constrain the Crop tool and draw a perfectly square crop box. The areas that will be removed will appear as a grey shield. The areas we'll keep remain 100% visible.



2 Get some balance

In the Options bar, set Crop Guide Overlay to Rule of Thirds. Drag inside the crop window to make the intersecting lines overlap the eyes. Drag outside the crop window to rotate it, correcting the model's head tilt and creating a symmetrical portrait.



3 Creative cropping

Drag the crop window right to remove half of the face. The positions of the remaining features still correspond to the rule of thirds. We have an eye, nose and mouth in the left third, hair in the middle and space at the right. Hit Enter.

Crop to correct

Tidy up problems like uneven horizons with these cropping techniques

As well as improving composition, the Crop tool enables you to overcome common problems. By zooming out to capture this landscape, we caught the edges of the lens hood at the edges of the frame. There's also some vignetting at the top left. When shooting from a moving boat it's harder to get the horizon looking horizontal, and ours tilted downwards towards the right.

To remove these problems, grab the Crop tool from the Tools panel. Select the entire image to start with. Turn on the Rule of Thirds Overlay. Now hold down Shift and this will constrain the cropped shot to match the aspect ratio – the shape and proportions – of the original photo. Drag a corner handle to tighten the crop window and remove the lens hood and vignetted corner. Drag inside the crop window to place the rock in the bottom left corner. Drag outside the crop box to rotate it so that the horizon runs parallel with a horizontal grid line.

If you send your photos off to be printed at a particular size, you may find that they come back cropped, which ruins your careful composition. Check out the guide below to cropping and resizing with precision.

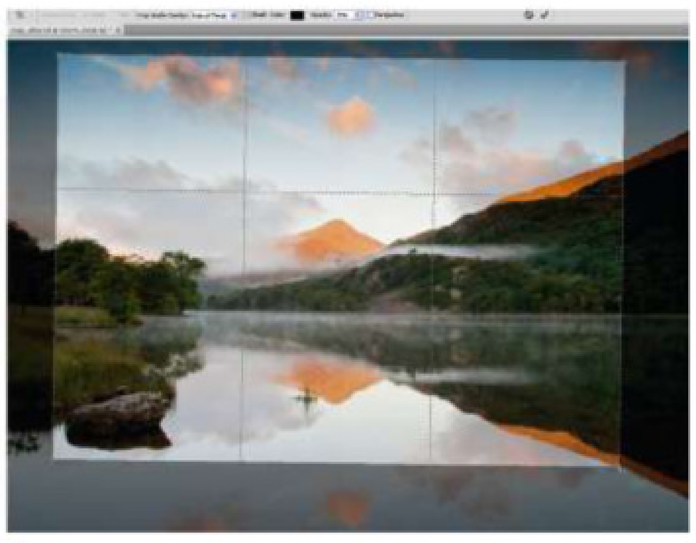


Resize your photos for printing



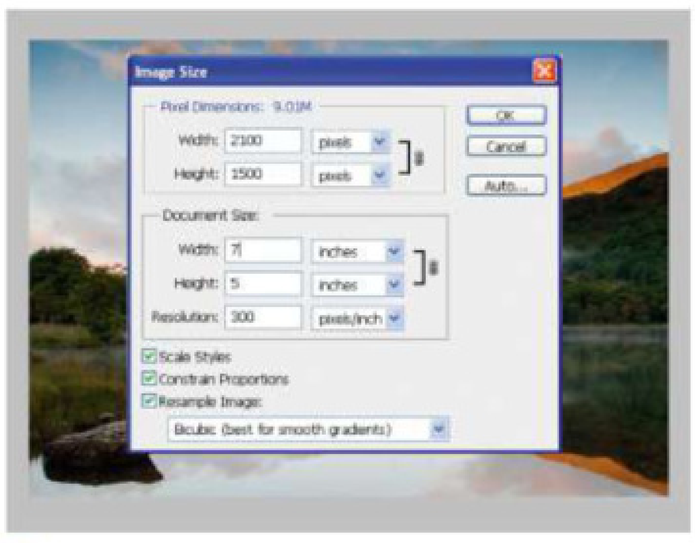
1 Choose a size

Open an image that you've processed and is ready to print. Click the Crop tool icon. Move up to the left of the Options bar and then click the Tool Preset picker's triangular fly-out icon. Select the Crop 5 inch x 7 inch 300 ppi preset.



2 Change the orientation

By default, the preset will create a portrait-oriented crop, but this particular image is in landscape format. Click the Swaps Height and Width icon in the Options bar to correct this. Click and drag to crop the image.

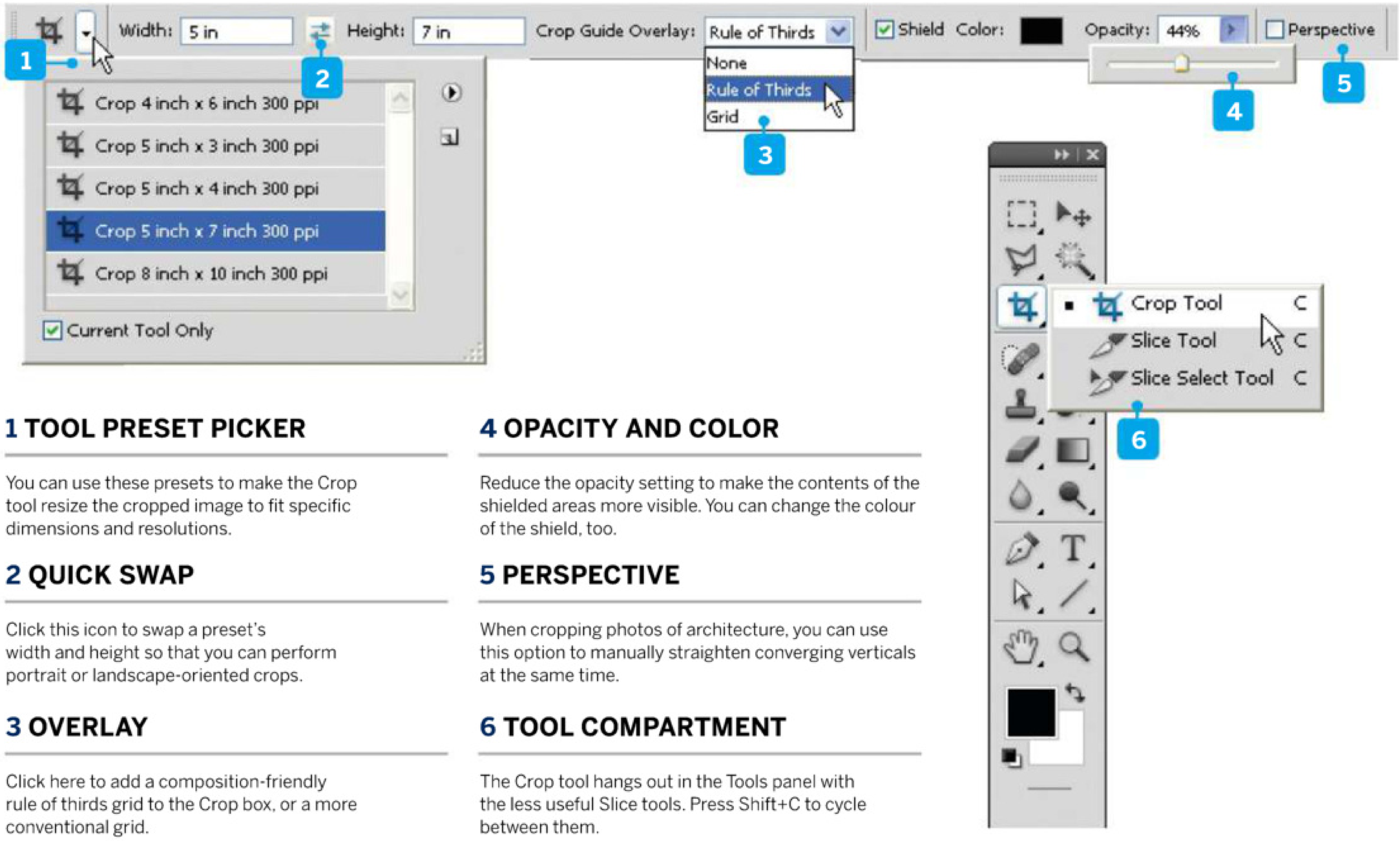


3 Check the size

To complete the crop, hit Enter or click the tick icon on the Options bar. Go to Image›Image Size. Set the units to inches. You'll see that the shot is precisely 7 inches wide by 5 inches high, with a resolution of 300 pixels per inch.

Photoshop Anatomy Crop tool options

Learn how to get the most out of this invaluable tool



1 TOOL PRESET PICKER

You can use these presets to make the Crop tool resize the cropped image to fit specific dimensions and resolutions.

2 QUICK SWAP

Click this icon to swap a preset's width and height so that you can perform portrait or landscape-oriented crops.

3 OVERLAY

Click here to add a composition-friendly rule of thirds grid to the Crop box, or a more conventional grid.

4 OPACITY AND COLOR

Reduce the opacity setting to make the contents of the shielded areas more visible. You can change the colour of the shield, too.

5 PERSPECTIVE

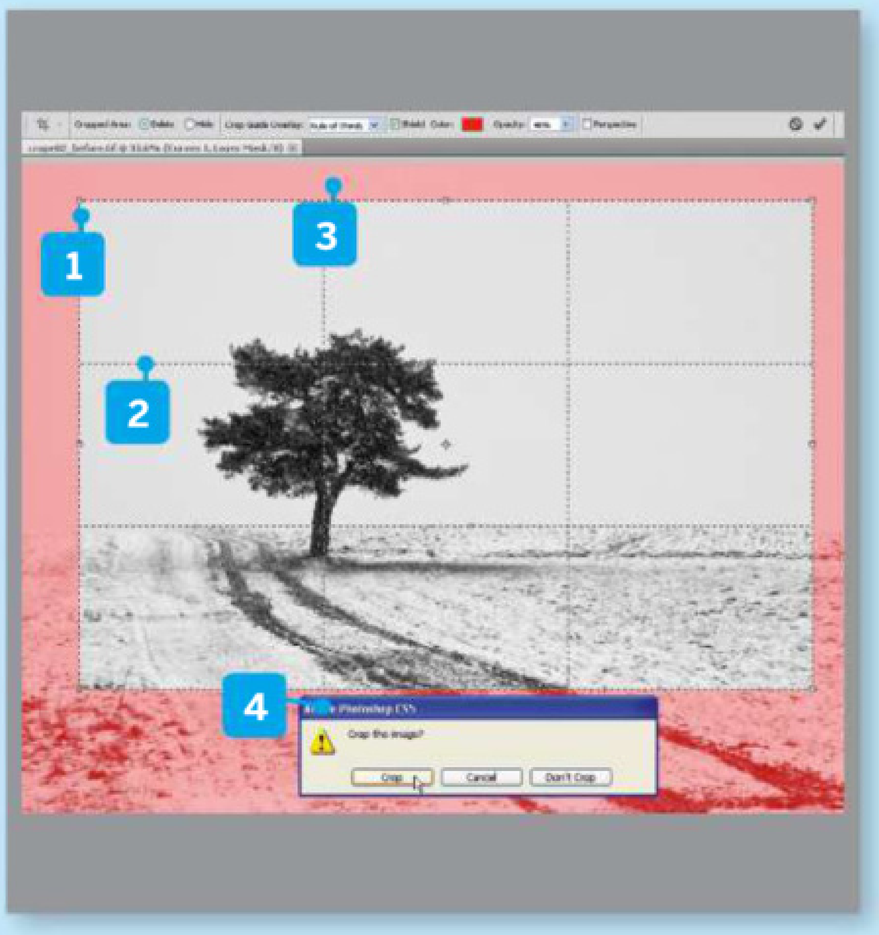
When cropping photos of architecture, you can use this option to manually straighten converging verticals at the same time.

6 TOOL COMPARTMENT

The Crop tool hangs out in the Tools panel with the less useful Slice tools. Press Shift+C to cycle between them.

Understanding... THE CROP TOOL

After selecting the Crop tool from the Tools panel, click and drag to start drawing a crop box **[1]**. Use the overlay to add a handy rule of thirds grid **[2]** to help you create a more aesthetically pleasing composition. By default, cropped areas appear as a dark grey colour, which can make it hard to spot content – especially in monochrome shots. You can make it easier to see cropped areas by changing the shield colour **[3]** and reducing its opacity. To apply the crop to your photo, hit Enter or click the tick in the Options bar. Alternatively, click another tool in the Tools panel and Photoshop will ask you if you want to complete the crop before it gives you access to the other tool **[4]**.



CHANGE THE SHIELD PROPERTIES

The areas outside the crop window are greyed out by a shield, which helps you focus on what will remain once you've cropped it. If you want to hide the preview of the cropped areas entirely, you can change the opacity of the shield overlay to 100%. It will become black and solid. ■





Blur, Sharpen and Smudge tools

Selectively blur, sharpen or smudge parts of an image with precision using these brush-based tools

In this Tool School, we'll take a close look at Photoshop's collection of smudging, blurring and sharpening tools. Each tool in this little collective has different capabilities, but the fact that they share the same toolbox compartment indicates that they all work in a similar way.

The Blur, Smudge and Sharpen tools enable you to change the properties of pixels in various ways. By adjusting the colour, tone and location of the building blocks that make up the image, you can produce a range of results, from sharper details to paint-like strokes. Each tool does what it says on the tin. The Sharpen tool enables you to emphasise fine details like eyelashes by increasing the contrast around the edge of particular pixels so they stand out.

The Sharpen tool works in a similar way to Photoshop's many sharpening filters, but its brush-based nature helps you restrict your sharpening to the areas that need it, without adding noisy sharpening artefacts to other parts of the image. The Blur tool is the yin to the Sharpen tool's yang. While Photoshop has many filters that blur the entire image, the brush-based Blur tool enables you to smooth out specific areas with more control.

This helps you to disguise blemishes like skin pores in a stroke, or smooth out image noise in the background. The Smudge tool is the most creative member of the trio. It enables you to organically relocate particular pixels by dragging the tool across them. This allows you to turn photos into abstract-style paintings. By changing the Smudge tool's brush tip, you can recreate many interesting media styles.

By using the Brush Preset picker in the Options bar, you can soften the edges of the three tools. A softer edge enables you to blend the edited areas with the rest of the image.

Unleash the Sharpen and Blur tools

Discover how to reveal fine details in specific areas and smooth out unwanted artefacts

When we take a shot on a digital camera, it may look sharp on the camera's LCD, but it can still end up a little soft when seen on your computer.

You could try to use the sharpening filters to add some more punch to the image, but this runs the risk of enhancing existing image noise, especially if you've captured the shot using a high ISO speed.

Below, we'll show you how to use the brush-based Sharpen tool to target and sharpen our subject's slightly soft eyes and lashes without adding more image noise to the picture. We'll also reveal how to blur unsightly skin pores.

The eyes are the first things the viewer looks at, so they deserve the most attention.





Enhance your portraits



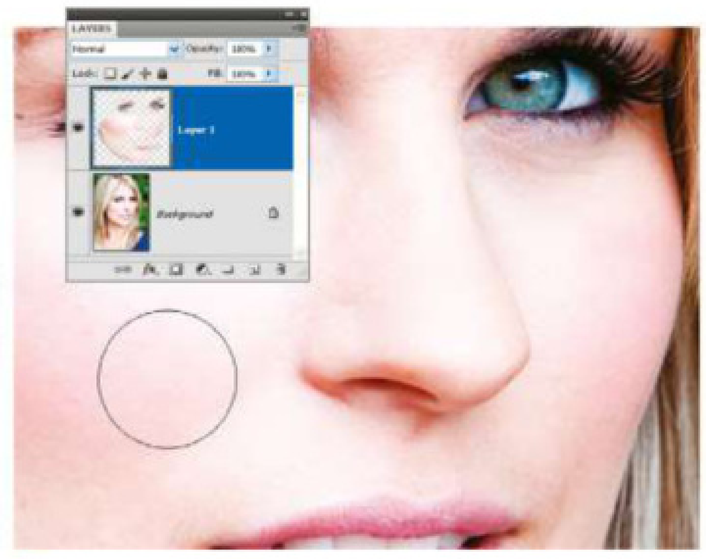
1 Open the image

Open a portrait and click the Create a new layer icon at the bottom of the Layers panel. Grab the Sharpen tool. Tick Sample All Layers and Protect Detail. In CS5 and above, this option stops the Sharpen tool from adding ugly noise artefacts.



2 Sharpen the detail

Set the brush size to 100. Reduce Strength to 30% so you can sharpen in gentle increments and keep noise to a minimum. Paint a few strokes over the eyes to increase their contrast and make them look sharper.



3 Blur the pores

Grab the Blur tool and set its Strength to 30, Size to 250, and tick Sample All Layers. Paint over skin pores and make-up flecks to soften them and create a smoother complexion. You could also smooth the lip texture a little if necessary.

Create a painted look

Learn how to give your photos a distinctive hand-painted effect using the Smudge tool

The Blur and Sharpen tools are perfect for subtly retouching a portrait, but their Smudge tool colleague enables you to get much more creative.

It's an easy enough job to slap a filter on a photo to make it look more like a painting. However, the resulting style will be the same as hundreds of similarly filtered shots.

To add a unique paint effect to the filtered photo, you can paint the brush-based Smudge tool over the picture. This enables you to create more organic-looking brush strokes that give your 'painting' the human touch that's absent in a digitally filtered photo.

Here, we'll show you how to paint with the Smudge tool on a separate layer so that you can take more control of the digital painting effect. You'll also learn how to vary the shape and texture of the Smudge tool to create a range of different strokes.

Before following the tutorial below, load a similar picture and drag the Background layer onto the Create new layer icon at the bottom of the Layers panel. Go to Filter›Artistic›Paint Daubs. Set Brush Size to 6, Sharpness to 7 and Brush Type to Simple. Click OK, and you're ready to enhance the image with the Smudge tool...

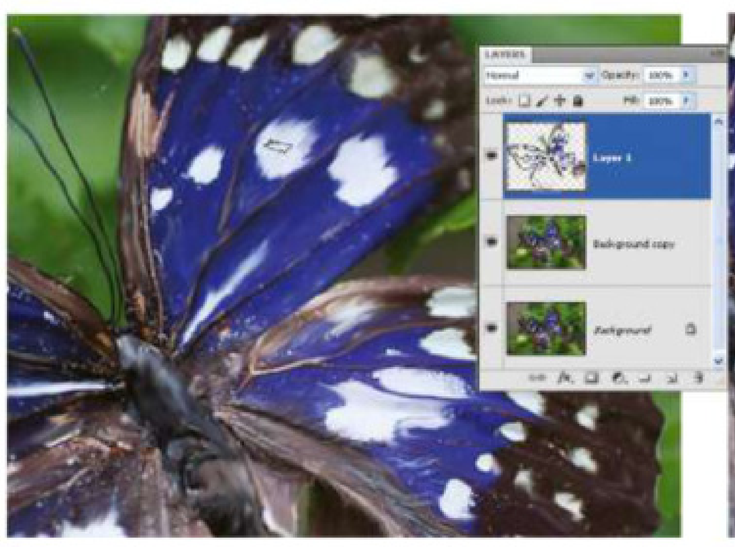


Smudge tool painting effects



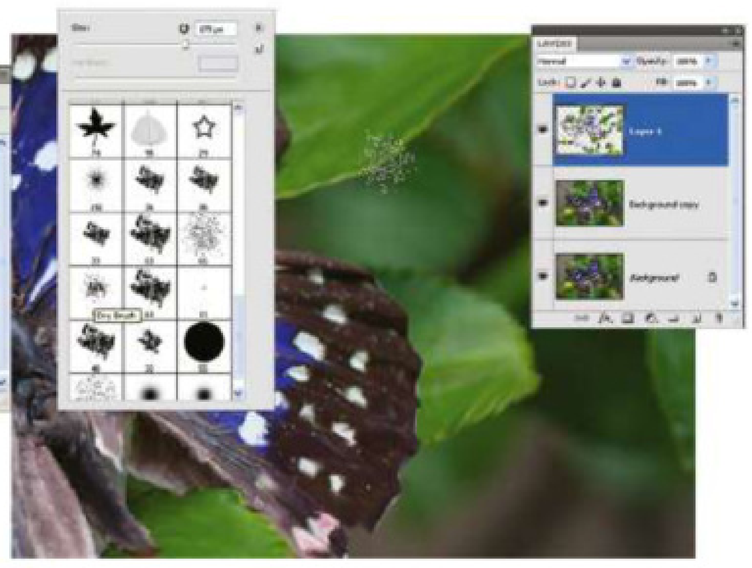
1 Choose a brush tip

Once you've applied the Paint Daub filter to an image like the one above, grab the Smudge tool. Click the Brush Preset picker and choose the Watercolor Loaded Wet Flat Tip. Set Strength to 50%. Tick Sample All Layers.



2 Start smudging

Clear Finger painting. Click the Create new layer icon in the Layers panel. Click the new layer's thumbnail to target it. Drag the Smudge tool across parts of the image to extend colours and details in short impressionistic paint-like strokes.

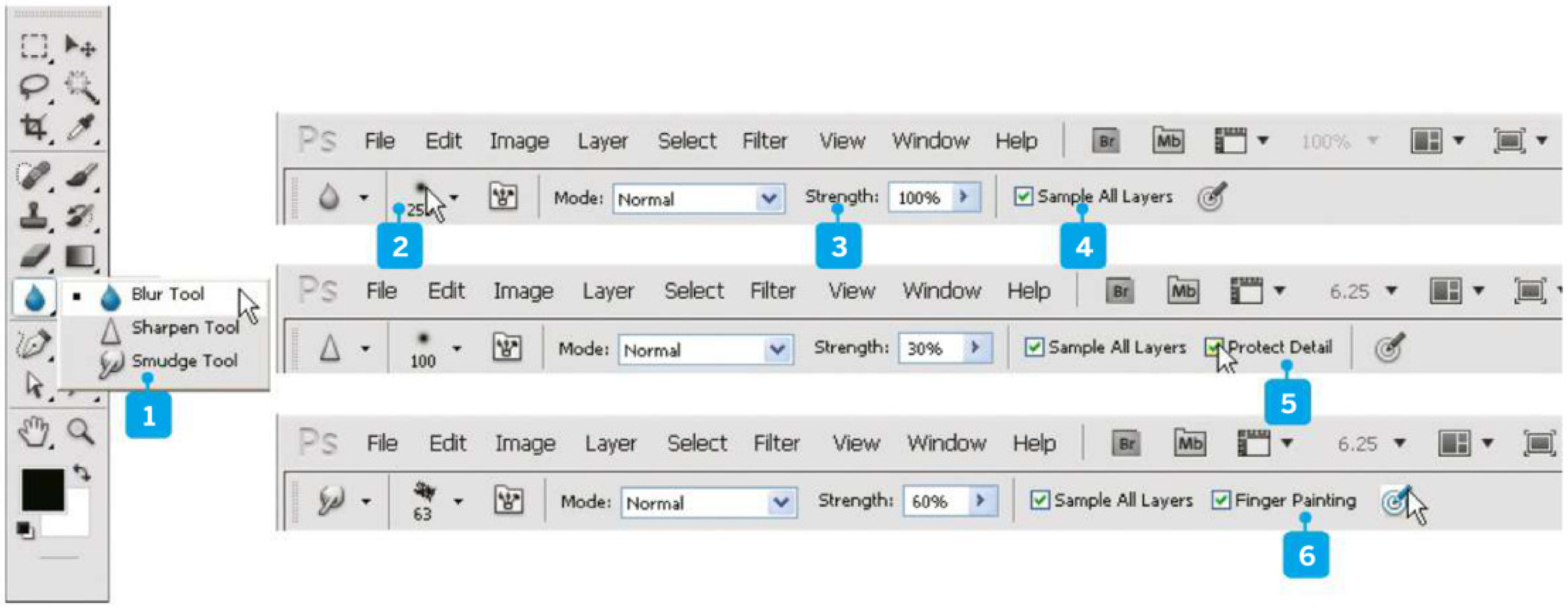


3 Smudge background

Go to the Brush Preset picker and choose a Dry Brush tip. Increase Size to 175 pixels. Use this larger tip to sketch in more abstract details in the background. You don't need to smudge every pixel, thanks to the filtered layer below.

Photoshop Anatomy Smudge, Blur & Sharpen

Take control of the way you sharpen, blur and smudge particular pixels



1 TOOL COMPARTMENT

The Blur, Sharpen and Smudge tools are cousins thanks to their editable brush-based attributes. Click and hold to choose the one you want to use.

2 BRUSH PRESET PICKER

You can change the size and the shape of the Blur, Sharpen and Smudge tools by clicking here. See below for more details on this important option.

3 STRENGTH

For more control, click here and drag the slider to reduce each tool's strength. You can then blur, sharpen or smudge in gentler increments.

4 SAMPLE ALL LAYERS

By clicking this box, you can blur, sharpen or smudge on a transparent layer that floats above the original image, which provides more control.

5 PROTECT DETAIL

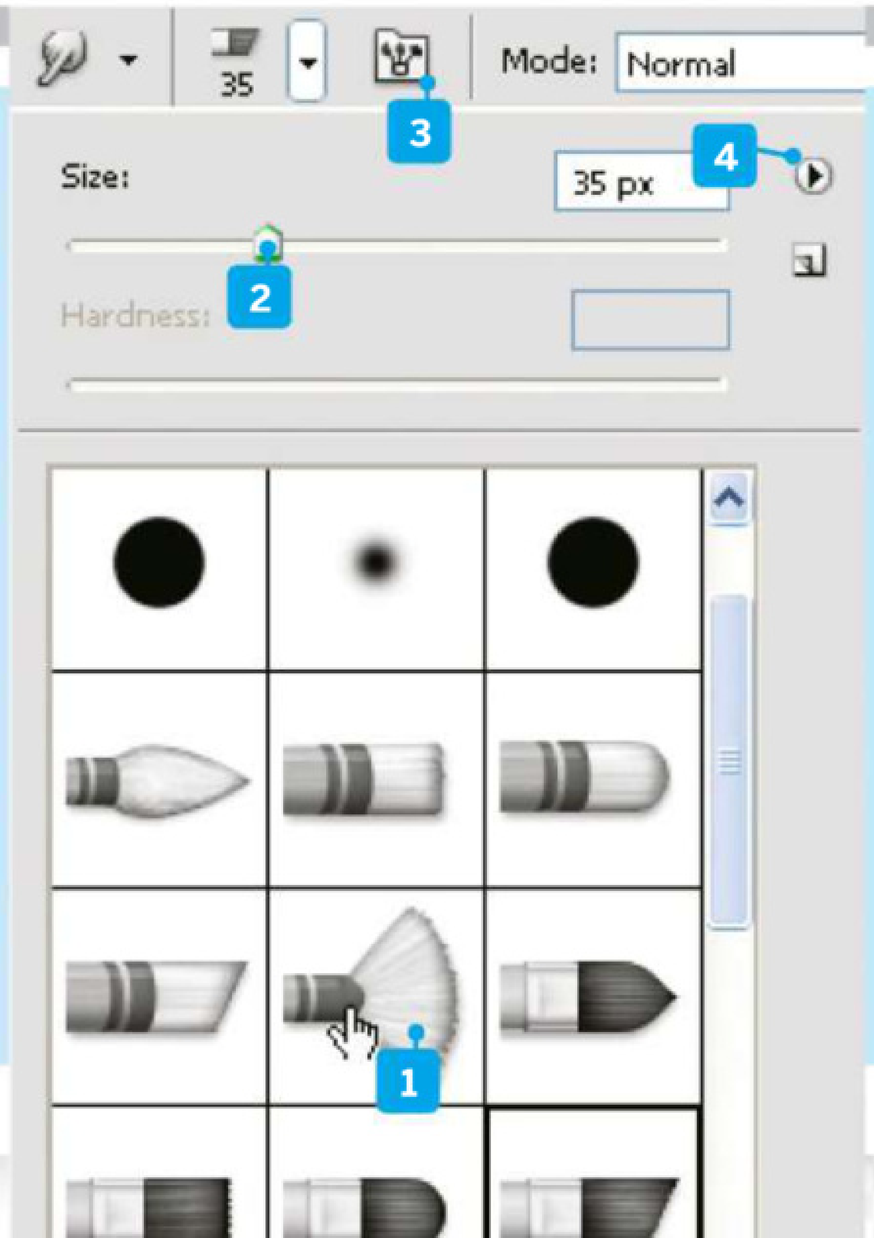
When using the Sharpen tool in CS5 and above, it's well worth clicking here, because this reduces noisy pixelated artefacts in the sharpened areas.

6 FINGER PAINTING

If you tick this box while using the Smudge tool, it will blend the Tool panel's foreground colour with the smudged pixels.

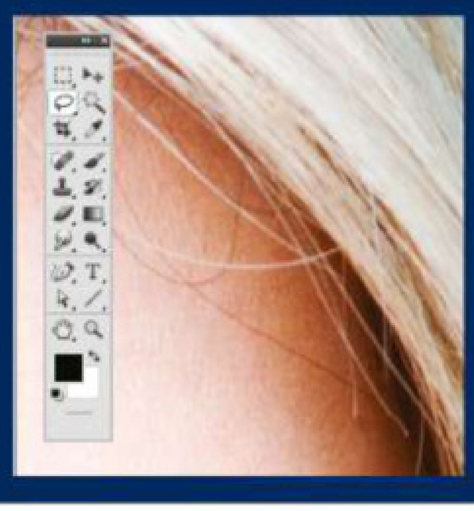
Understanding... CHANGING BRUSH TIPS

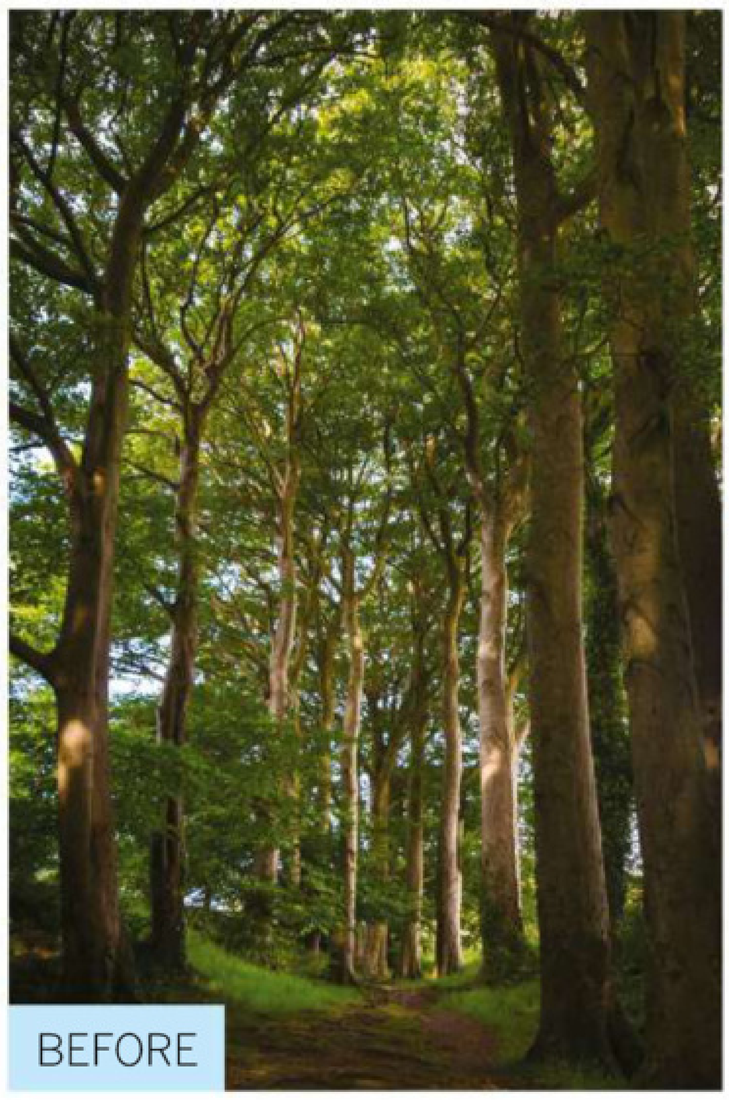
The trick to producing more realistic Smudge tool paint strokes is to play with the different types of brush tips. When you click the Brush Preset picker, you have a default collection of tips to peruse, including realistic ones like Flat Curve Thin Stiff Bristles **[1]**. These brush tips mimic the behaviour of real brushes by leaving streaks in the smudged areas that look like they were created by bristles. For more subtle bristle streaks, reduce the Size option **[2]**. To get a preview of the type of stroke that a selected tip will produce, click here to open the Brushes Panel **[3]**. By clicking this fly-out icon **[4]** you can replace the default tips with a variety of new collections.

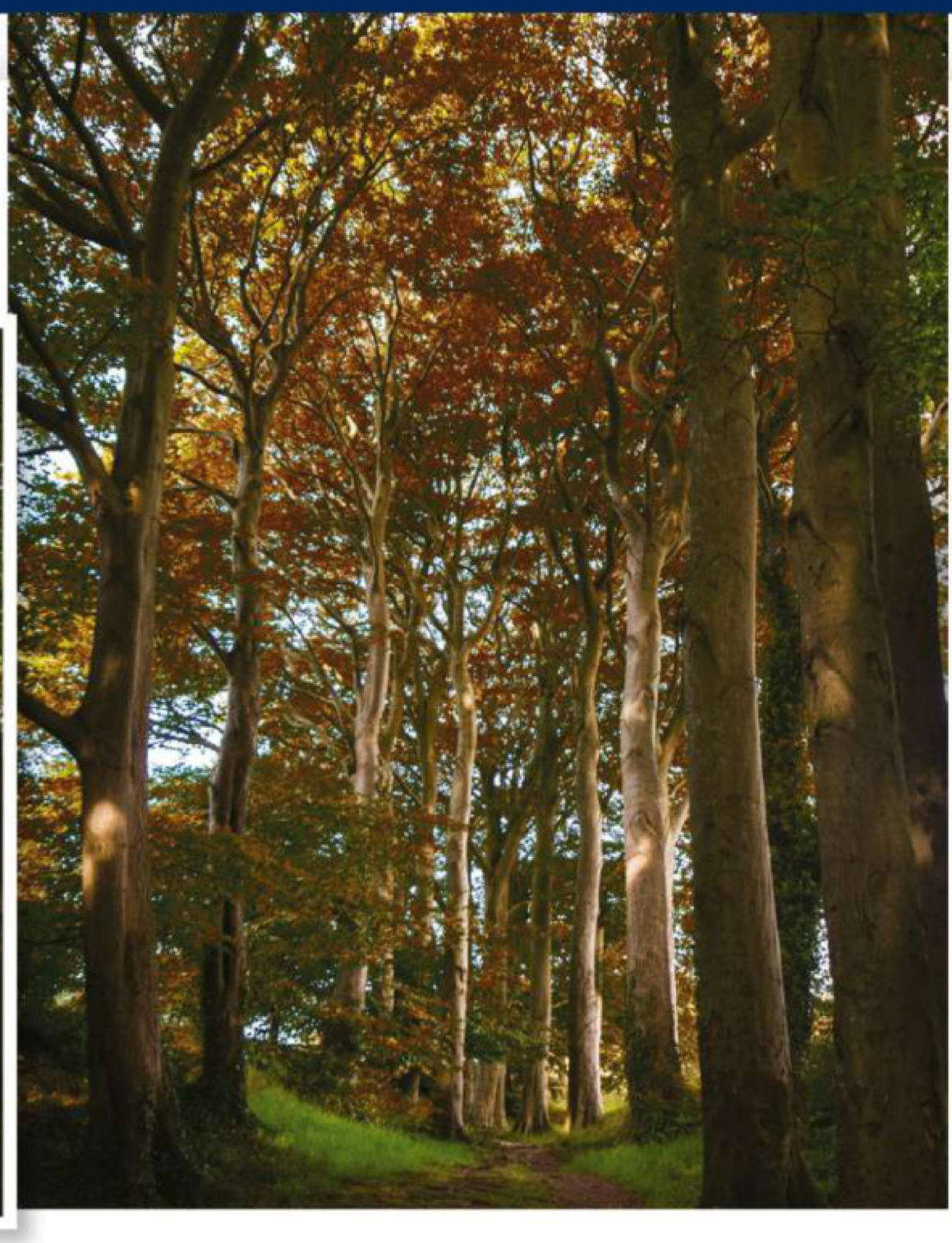


LESS NOISE

In low light, you can capture more detail by increasing the ISO speed. This can add ugly specks of image noise to the shot, however. If you try to sharpen an area that contains lots of noise, you can end up exaggerating it. Instead of increasing the ISO, slow down the shutter speed or open the aperture a little wider.







The Color Range selection tool

Overcome tricky selection challenges by targeting and editing a specific range of colours in an image

In this Tool School we look at a versatile way to select pixels based on their colour, using the Color Range command. This command is a close cousin to the Magic Wand tool, which can also sample and select similar colours anywhere in an image.

Unlike the Magic Wand (which is in the Tools panel), the Color Range command hangs out in the Select menu at the top of the workspace.

Color Range is similar but superior to the Magic Wand. When you click with the Magic Wand it creates an instant 'marching ants' selection marquee based on the colour of the sampled pixels. With the Color Range command you also end up with a selection marquee, but you have much more visual feedback about which pixels are selected.

When you click the Color Range command's eyedropper tool, it samples the target area and selects similar colours throughout the image. Unlike the Magic Wand's marquee, you can preview which colours are part of a current selection as white patches.

Unselected areas show up as patches of black. This makes it much easier to see how your selection is shaping up. For example, if you need to select a model's green coat then you can click the Color Range command's Add to Sample Eyedropper tool on varying shades of green until the coat looks pure white in the preview window. You can then convert the white preview into a selection marquee and use an adjustment layer to make the coat another colour.

As with the Magic Wand, you can use the Color Range command to Add to or Subtract from a selection to fine-tune it. The white patches will change to display the refined selection. You can also increase the sensitivity of the eyedropper so that it includes a wider range of similar pixels.

Change the seasons

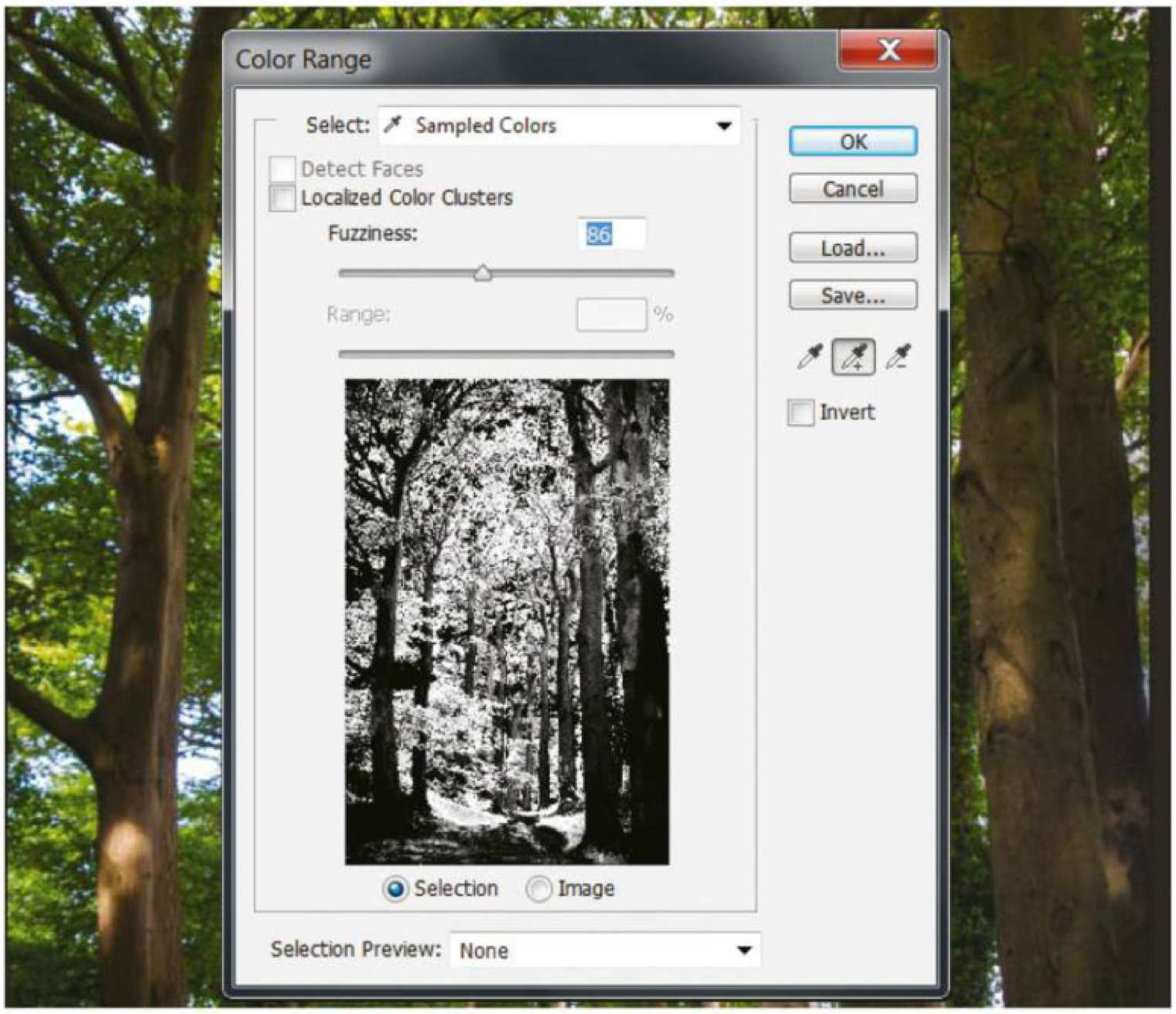
Use the Color Range command to select a range of colours in a scene

You may find the perfect location for a well-composed woodland scene, but you might be too early to catch the leaves as they change from lush green to a warmer colour palette of autumnal yellows and reds.

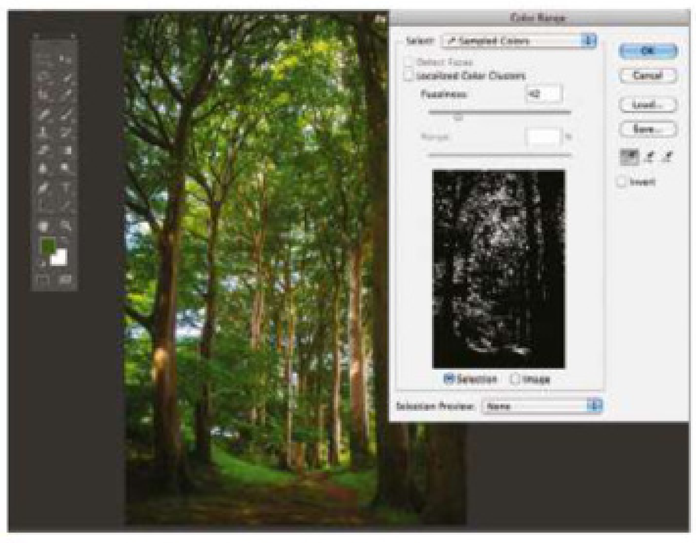
To fast-forward the season, you can use the Color Range command to select the greens in the image and give them a more autumnal palette.

In the walkthrough below we'll show you how to use the Color Range command's Eyedropper tool to sample the leaves in this image and create an initial selection. Due to light and shade, the colour of the leaves will vary, so you'll learn how to increase the sensitivity of the eyedropper so that it captures a wider range of colours. You'll then convert the selection into a layer mask so that only the desired areas will turn from green to red.

Once you've followed our three steps to make a selection and change the leaves to a russet red, you could click back on the Background layer and summon the Color Range command once again, then sample a range of the more yellow leaves to make a new selection. For this layer, you could use a new adjustment layer to give the yellow leaves a browner hue.

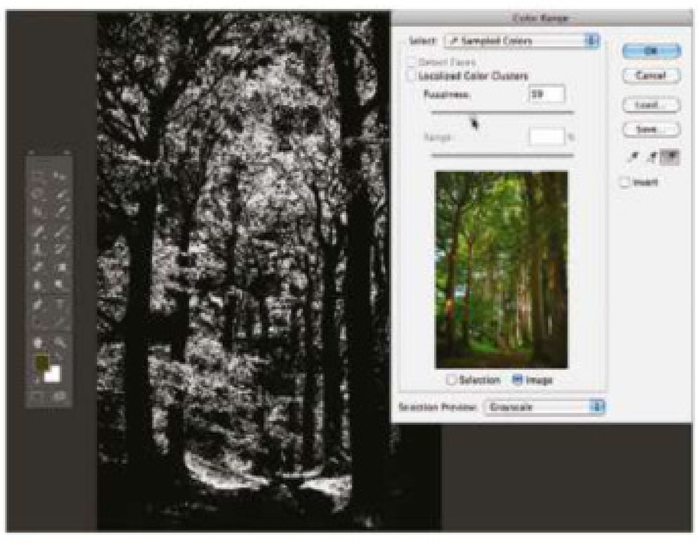


Convert a summer scene to autumn



1 Make a selection

Open a woodland photo and go to Select›Color Range. Keep Localized Color Clusters clear so that you can select a wider range of unconnected leaves. Grab the eyedropper and set Fuzziness to 42. Click the main image to sample some green leaves.



2 Increase the range

Set the Selection Preview to Grayscale to see a larger version of the image. Include more varying shades of green leaves if you like by increasing the Fuzziness value. The whiter areas will get grow, while unselected areas will remain black.



3 Change the colour

Click OK to turn the sampled areas into a selection marquee. Create a Hue/Saturation adjustment layer. Drag the Master Hue slider to −50 to change the selected range from green to russet. Paint on the mask to stop the effect on the grass.

Advanced Color Range tricks

Make selections based on properties such as shadows, highlights or even skin tone

Despite the name, the Color Range command can be used to make selection marquees based on other properties in your image. By default, its Select drop-down menu is set to Sampled Colors, but you can scroll through the menu to select a range of colours in an instant by choosing Reds, Yellows, Greens and so on. If you want to edit particular tonal ranges, then the next section in the drop-down menu enables you to select Shadows, Midtones or Highlights. You could use this option to select a photograph's under-exposed shadows or its over-exposed highlights and then apply a Levels adjustment layer to the selection to reveal more detail in the darkest or brightest areas of the image. The CS version of the Color Range command includes the option to select out-of-gamut colours. This enables you to select colours that look fine on a computer screen, but that can't be reproduced by a printer. You can apply a Hue/Saturation adjustment layer to an out-of-gamut selection marquee and then reduce the Saturation value to try to produce printable colours in the problematic areas. In CS6 and CC, there's also the option to select Skin Tone, so you can target and select faces more effectively.



Select a face



1 Detect a face

Open a portrait and go to Select›Color Range. Tick the Localized Color Clusters box. This is similar to the Contiguous box when making Magic Wand tool selections. You can now tick the active Detect faces box for more accurate skin-tone detection.



2 Adjust the fuzziness

Set the Selection preview to Black Matte. Click the Add to Sample eyedropper and select more facial detail. Reduce Fuzziness to 28 and Range to 36% to select less clothing. Use the Subtract from Sample eyedropper to remove more clothing.



3 Add a new background

Click OK. Click the Add layer mask icon in the Layers Panel to hide the unselected areas. Load a new background image into Photoshop. Paint with a white brush tip on the layer mask to fill in any holes in the face.

Photoshop Anatomy Color Range options

Get the most from the Color Range command's ability to make selections

1 SELECT

This menu enables you to change the way the Color Range command operates. You can set it to select a specific colour (such as Magenta).

2 DETECT FACES

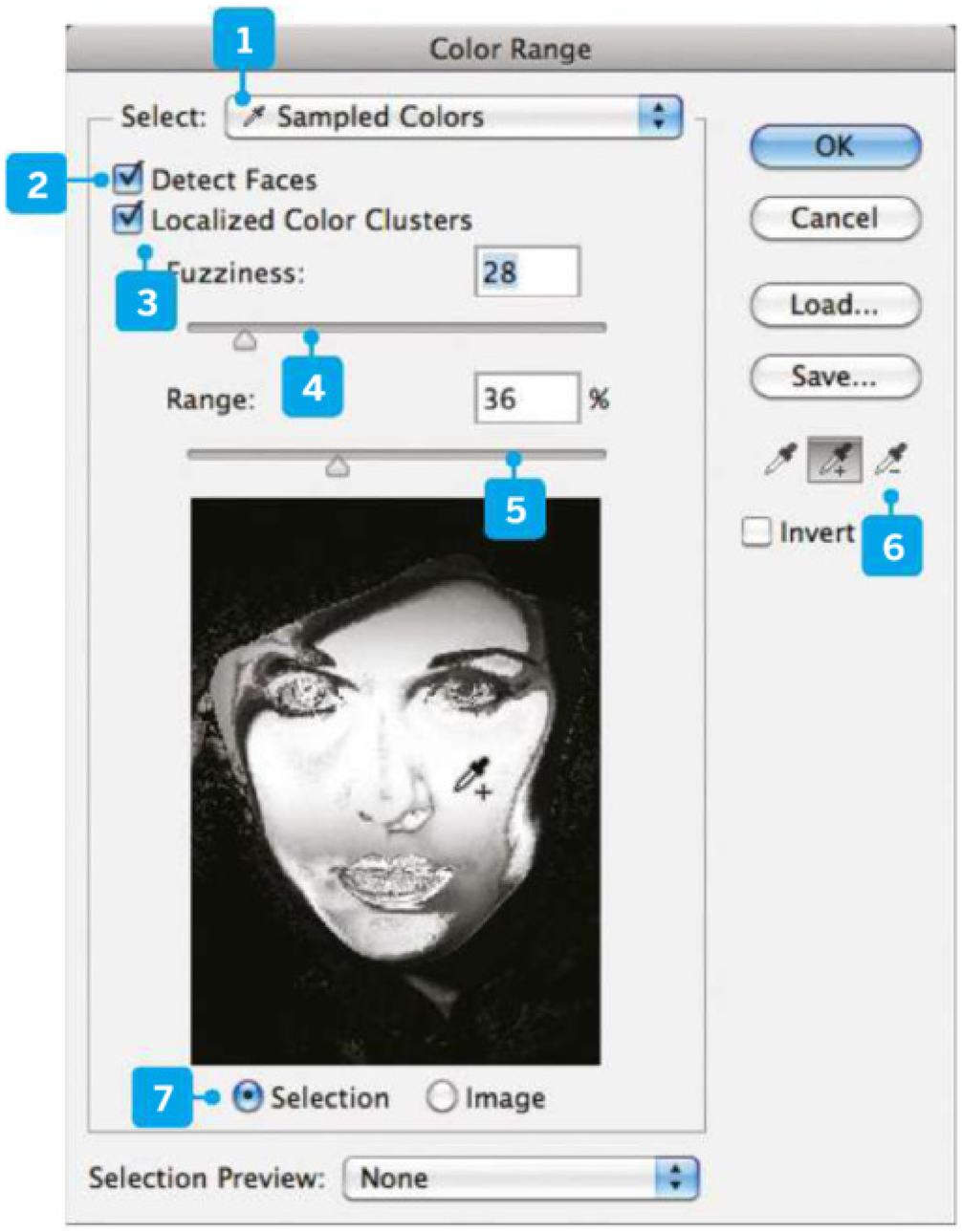
When using the Skin Tones option from the Select drop-down menu, it's worth ticking this box to make more effective selections.

3 LOCALIZED COLOR

This setting acts like the Magic Wand's Contiguous option. When ticked, the eyedropper will be less likely to select unconnected colours.

4 FUZZINESS

This slider acts like the Magic Wand's Tolerance. A higher value will select a wider range of colours. A lower value will select more similar colours to the sampled area.



5 RANGE

This is only available when the Localized Color Clusters box is ticked. Lower settings select a narrow section at the centre of the frame.

6 EYEDROPPERS

These handy tools enable you to add to or subtract from a selection by clicking specific parts of the image.

7 SELECTION

Click Selection to see a preview in greyscale of the selected pixels, or click Image to see the original colours of the image.

Understanding... THE SELECTION PREVIEW

It can be a challenge to see precisely which pixels are selected and which aren't. When you make a selection with the Magic Wand tool, you can press Q to see the image in Quick Mask mode. In this mode, selected areas appear as their original colour, while unselected pixels are covered in red. If you prefer using Quick Masks to work out which areas are currently selected, then you can preview a Color Range selection as a Quick Mask **[1]** using the Selection Preview menu. The Grayscale preview **[2]** shows selected areas as white, translucent selections as grey and unselected areas as black. Black Matte **[3]** replaces unselected areas with black. The White Matte option keeps selected areas in colour **[4]**. ■





Content-Aware

Clone, move, patch and heal an image the smart way using the intelligent Content-Aware tools

In this Tool School, we'll explore ways to make tools perform more effectively, thanks to the Content-Aware option. This intelligent feature can dramatically speed up your editing. When you paint with the Spot Healing Brush over an unwanted pimple on a model's cheek, the tool will automatically sample adjacent skin pixels, place them over the pimple and seamlessly blend the join between cloned pixels and their neighbours. However, if the pimple is too close to a facial feature such as an eyebrow, the brush may inadvertently sample some hair and place it over the pimple. This forces you to undo the edit and switch to its cousin the Healing Brush, so that you can manually Alt-click to choose a patch of clear skin to place over the pimple.

Alternatively, by activating the Spot Healing Brush's Content-Aware option it will analyse the pimple in context with its surroundings, enabling the tool to take a suitable skin sample rather than an inappropriate eyebrow to place over the pimple.

The Content-Aware option enables tools such as the Spot Healing Brush to become a bit more intelligent, so that they can perform more effectively. However, even with this IQ boost they still have their limitations. The Content-Aware Spot Healing Brush will usually do a decent job of replacing a horizontal power cable that crosses a building's vertical lines with appropriate pixels, but if the cable overlaps a more complex shape, then the sampled and relocated pixels will be unlikely to blend successfully with their neighbours. In these instances you'll still need the Healing Brush or Clone Stamp tools to manually sample more appropriate pixels.

So Content-Aware technology isn't infallible, but as you'll see, they can be very useful when retouching certain images.

Fix photos with Fill and Patch

Use Content-Aware to remove distracting background objects

Content-Aware commands such as Fill and Patch can help you conquer common photo-fixing challenges. Take a look at our shaggy dog image. The horizon is tilted at an angle and there's a black barbecue stand cluttering up the background on the right, distracting the eye from our canine subject. You could try using the Crop tool to straighten the wonky horizon, but this would involve losing the lower edge of the dog if you need to retain the shape (or aspect ratio) of the image. Bits of unwanted barbecue stand on the right would still remain in the cropped shot, so you would also need to use the time-consuming Clone Stamp tool to replace the unwanted barbecue with clear sections of wall from the other side of the door.

To remove unwanted objects more quickly you can combine the powers of the Patch tool with the Fill command, especially as both can be made to be Content-Aware. The Patch tool enables you to replace the barbecue with blank bits of wall and then blend the relocated wall pixels seamlessly with their new neighbours. You can then rotate the shot to straighten the horizon, and use the Content-Aware Fill command to quickly fill these gaps.

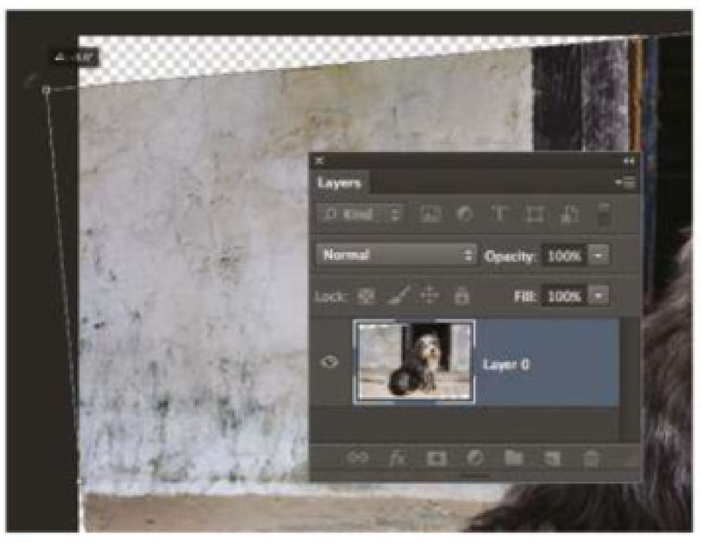


Fill and Patch



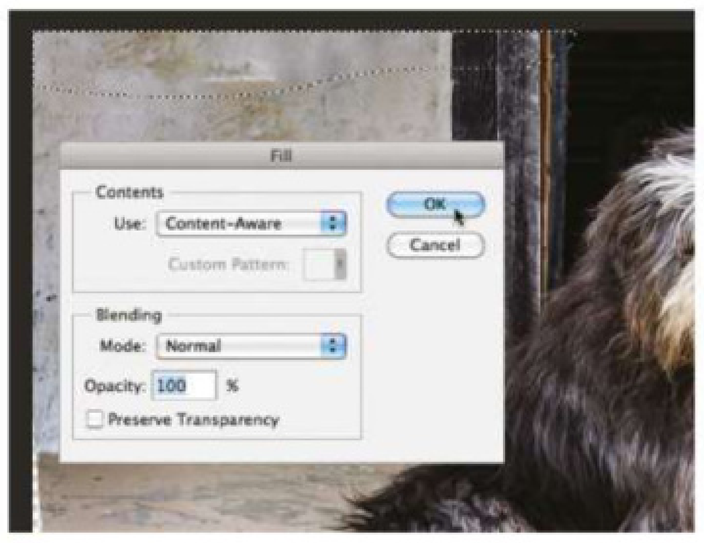
1 Draw a patch

Open an image similar to the one above. Grab the Patch tool. Set the Patch option to Content-Aware. Set Adaptation to Medium. Draw a patch around the distracting element. Drag the patch to overlap a clear section of the image.



2 Straighten the horizon

In the Layers panel, double click the locked Background layer to make it editable. Go to Edit›Transform›Rotate. Drag the corner handles to an angle of −5.00 degrees to straighten the horizon. Your own image will differ, of course.



3 Fill the gaps

Choose the Lasso tool. Draw a rough selection around a transparent corner and its adjacent pixels. Go to Edit›Fill. Set Use to Content-Aware. Click OK. This fills the selection with appropriate bits of sandstone and wooden beam.

The Content-Aware Move tool

Recompose your subjects and fill the gap that they leave with this new tool

When it comes to shooting animals (with a camera, we hasten to add!), you don't have much control over their behaviour. This can cause you to compromise when it comes to composing your photographs.

Take this photo of some sheep, for example. Ideally, we would have preferred the sheep to take a few steps to their left to fill the gap between the group and the tree. In older versions of Photoshop we could solve this problem by grabbing the Patch tool, setting it to Destination and then drawing round the two sheep on the far left.

We could then drag them closer to the tree to relocate them. We'd then need to use the Clone Stamp tool to replace the original two sheep with an empty section of ground and sky.

Thanks to the new Content-Aware Move tool in CS6 and CC you can work more quickly. In the walkthrough below you'll discover how to select the sheep, drag them into a new position and then watch the gap that they leave become filled with appropriate pixels. You'll also learn how to tweak the Move tool's Adaptation options so that the gap left by the relocated objects is filled with content that blends more effectively with its surroundings.

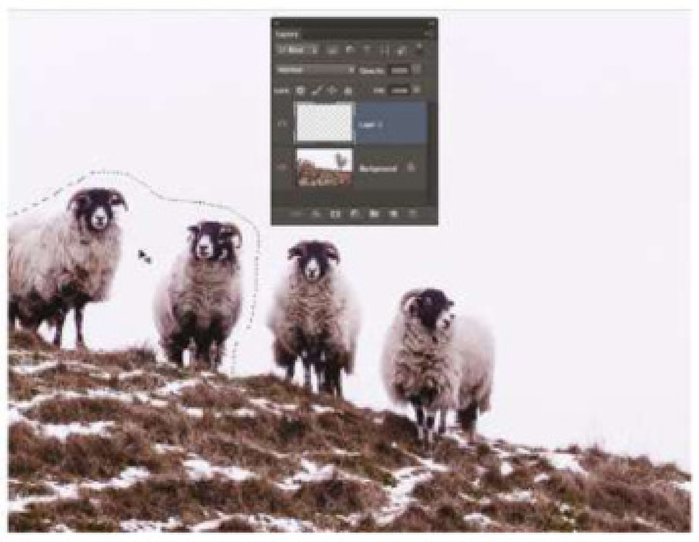


Recompose shots with Content-Aware



1 Set up the options

Open an image similar to the one above. In the Options bar, set the Mode to Move. If you leave it on Extend then the sheep won't be replaced by an empty bit of landscape. Set the Adaptation to Very Strict so that the space left by the sheep blends.



2 Create new layer

Choose Layer›New Layer. Click OK. Tick the Sample All layers box in the Options bar. This enables the moved and filled areas to be applied to the transparent layer, leaving the original layer untouched. Draw around the elements you want to move.

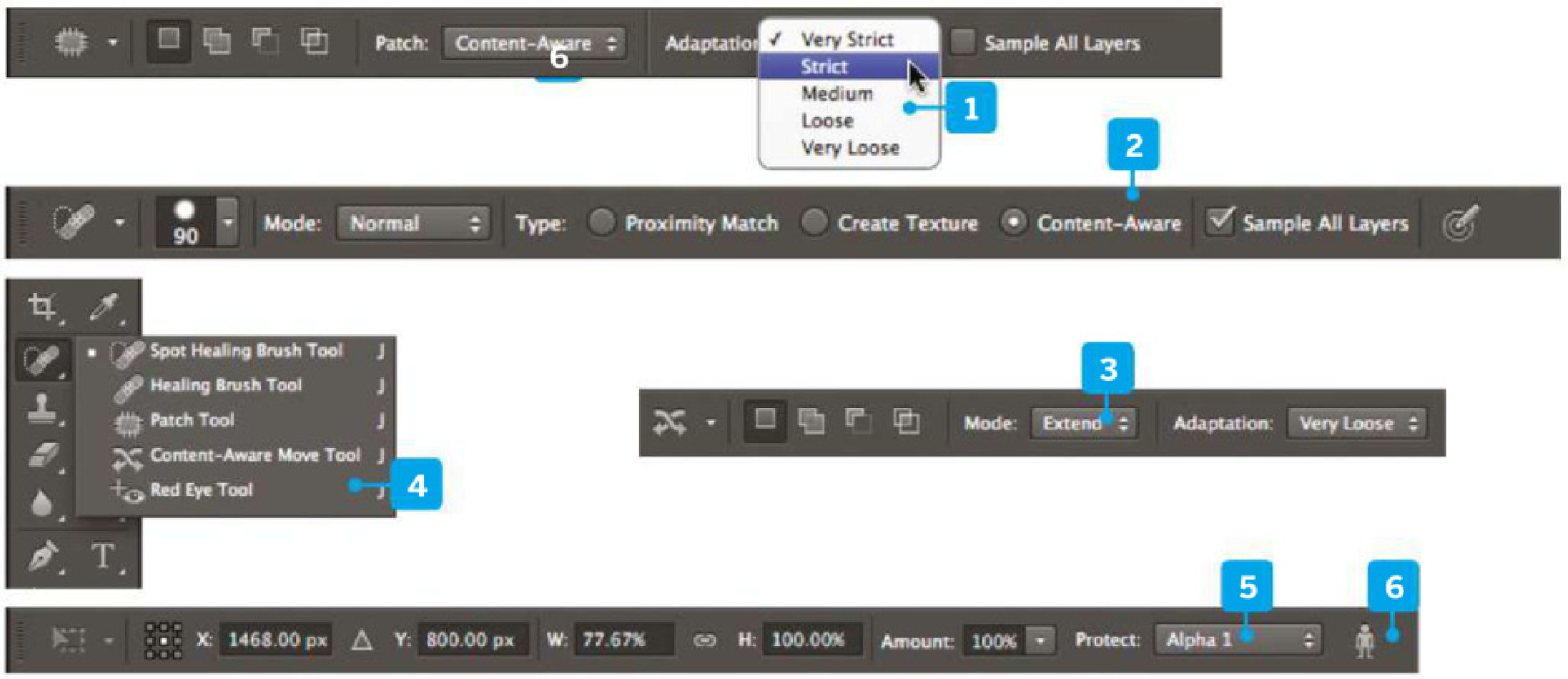


3 Drag and drop

Drag the elements to the new location. They should blend with their new surroundings, and the gap they leave should be filled with appropriate detail. You may need to draw and move a few times for the tool to work.

Photoshop Anatomy Content-Aware

Squeeze as much help as you can from Photoshop's clever Content-Aware tools



1 ADAPTATION

The Patch and the Content-Aware Move tools' Adaptation option enables you to fine-tune the way the edited pixels blend with their surroundings.

2 OPTIONS

The Spot Healing Brush can automatically sample adjacent pixels more intelligently if you enable its Content-Aware option.

3 EXTEND

The Content-Aware Move tool's Extend option enables you to select textures at the edge of the frame and drag to extend them.

4 CONTENT-AWARE

This compartment contains three Content-Aware tools – the Spot Healing Brush tool, the Patch tool and the Content-Aware Move tool.

5 PROTECTED AREAS

The Content-Aware Scale command can avoid squashing certain objects if you select them, turn them into an Alpha channel and select that channel.

6 SKIN TONES

The Content-Aware Scale command has a protect skin tones icon if your shot has any people in it. This helps to avoid squashing them too.

Understanding... CONTENT-AWARE SCALING

If you use the Edit>Transform>Scale command to scale a shot, you'll squash or stretch it. The Content-Aware Scale command can selectively squash or stretch unimportant pixels and preserve the proportions. For an example, open an image like the one on the right. Double click the Background layer's thumbnail to unlock it **[1]**. Go to Edit>Content Aware Scale. Drag the left control handle of the bounding box **[2]** to the right to transform it horizontally. The command scales the sky and grass between the tree and the cow **[3]** to a greater extent, while making a lesser transformation to the tree and cow **[4]**. This avoids squashing the animal while placing it closer to the tree. ■



Photography week

Your weekly photo fix for

iPad and iPhone

Download our free app today and start enjoying the award-winning digital magazine for photography enthusiasts



+ Video guides to the latest techniques and gear
+ Interactive galleries of the world's best photos
+ The latest photo news, interviews and opinions
+ Photo contests with prizes for the best entries
+ Integrated Facebook and Twitter functionality

Available on the App Store

http://goo.gl/DWC7ND

GET YOUR FIRST FIVE ISSUES FREE!*

Future DIGITAL CAMERA WORLD PRESENTS

VIDEOS INCLUDED

08-14 May 2014 Issue 85

Photography Week

Canon

EOS 1200D

CANON ZOOM LENS EF-S 18-55mm 1:3.5-5.6 IS II

20 TIME SAVERS & POWER TIPS

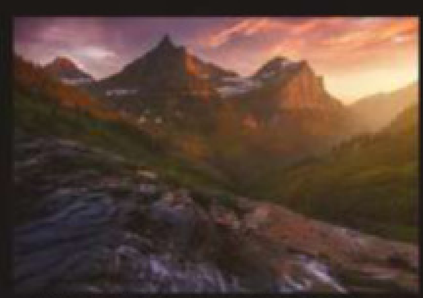
ESSENTIAL TECHNIQUES YOU HAVE TO TRY



INSPIRED BY A LOW-HT MASTERCLASS



COULD THIS BE THE BEST COMPACT CAMERA EVER?



DISCOVER THE SECRETS OF A GREAT LANDSCAPE

OPEN



* Try before you buy with a no-obligation 30-day trial subscription!



Automated Actions

Streamline your image-editing workflow by turning repetitive tasks into automated Photoshop Actions

In this Tool School we examine ways to trim down the time it takes to perform typical but laborious photo-fixing tasks, so that you can spend more time shooting and less time editing. Some of the most common problems you'll encounter as a photographer are with exposure. Your shots could be under-exposed and lack contrast, as well as being desaturated, for example.

Automated commands such as Auto Tone, Auto Contrast and Auto Color can improve images quickly and easily, but they are likely to introduce unwanted effects such as colour casts that can make a warm shot look too cool. Actions enable us to automate our photo fixes more effectively.

The term 'Action' is pretty self-explanatory. You can perform a series of step-by-step photo-fixing operations such as adjusting Levels or resizing a canvas, and Photoshop will record each step in the editing process as an Action. You can then open a new image and play back the recorded Action to edit the image using the same techniques.

Imagine you've returned from a shoot and are perusing your pictures in Photoshop. Photos that looked correctly exposed on your camera can look dull and flat on your computer's correctly calibrated display. This means that you'll have to tweak the colours and tones of every shot to make them look their best. Thanks to Photoshop's Actions panel, this doesn't have to be a repetitive task. If you've used the same camera settings to capture every shot then you can use the same Action to fix them all.

In this Tool School we'll show you how to record your tonal adjustments as you fix an image, turn them into Actions, and apply them to the rest of the photos in the series. You can even apply an Action to an entire folder of shots as an automated operation.

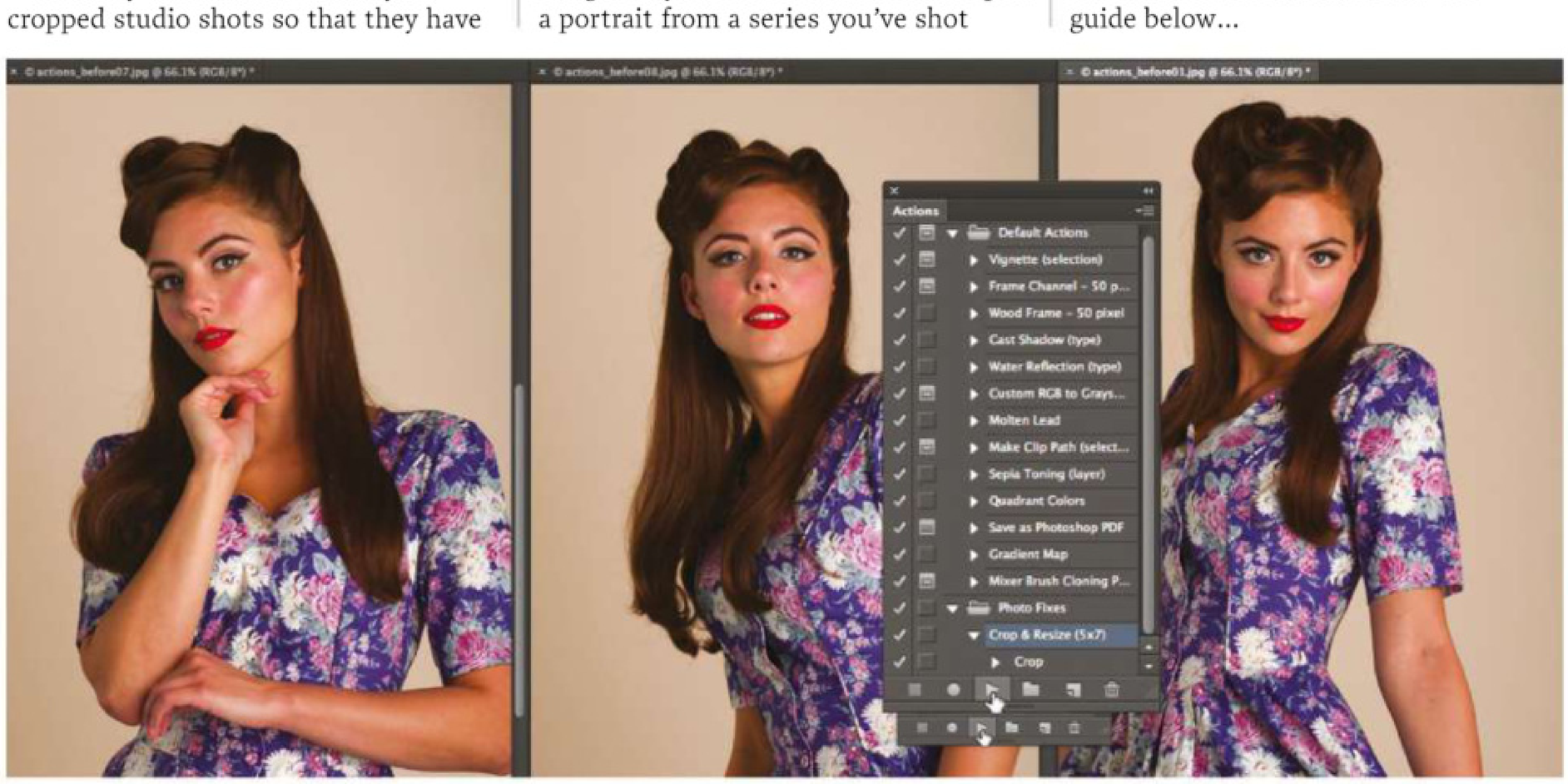
Lights, camera, Action

Create an Action that will crop and resize an image to a specific resolution

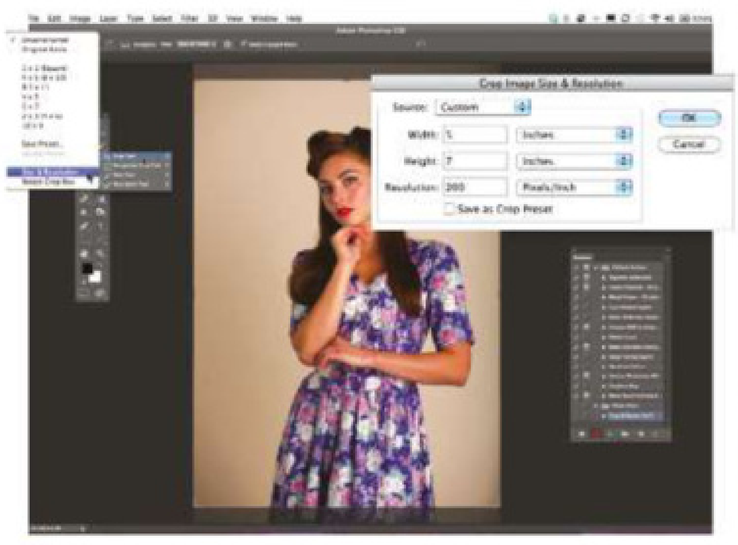
When shooting a model in a studio you may end up with a collection of photos that contain more background space than you'd prefer. By cropping the shot in Photoshop you can lose boring bits of background and make the model look more prominent in the frame.

You may also want to resize your cropped studio shots so that they have typical print dimensions such as 5x7 inches at 200 dots per inch.

Cropping and resizing a series of similar images would be tedious and time-consuming, but by recording the edits as an Action you only need to perform them once. You can then apply the Action to crop and resize similar images in your series with a click. Open a portrait from a series you've shot that has a bit too much space on one side. Go to Window›Actions. Click the Create New Set icon at the bottom of the panel. Name the set 'Photo Fixes'. Now click the Create new Action icon. Name the Action 'Crop and Resize (5x7)'. Make sure it goes in the Photo Fixes set. You can also assign a colour label. Click Record and follow the guide below...

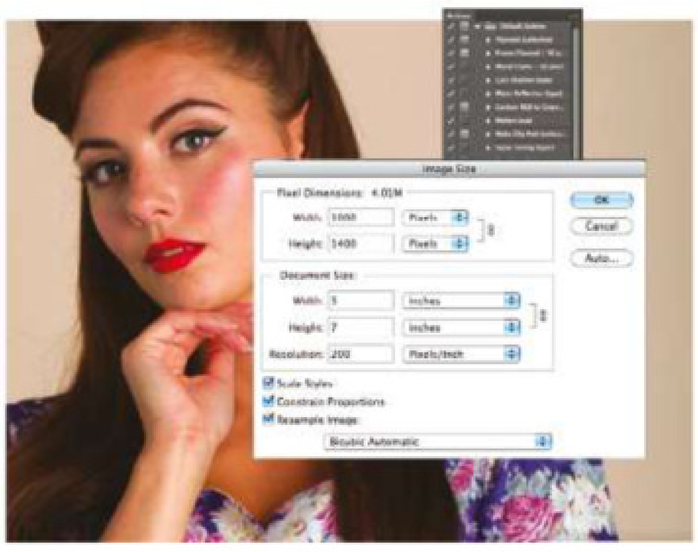


Record an Action



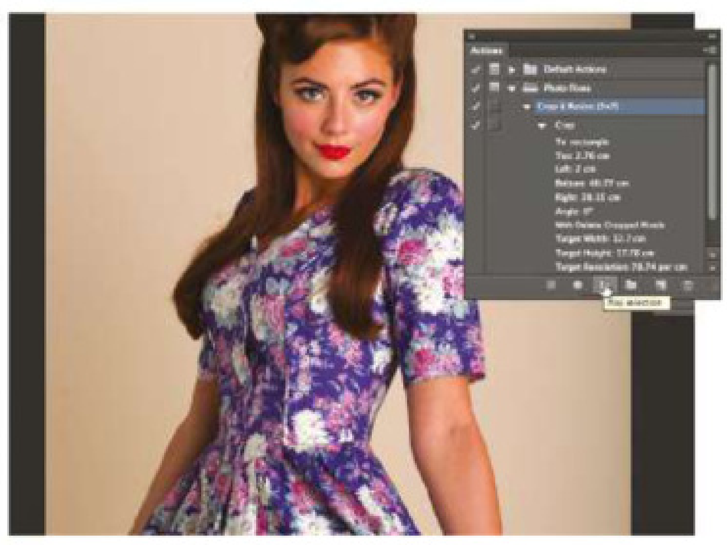
1 Set the crop size

Grab the Crop tool from the Tools panel. In the Options bar menu, choose Size and Resolution. Set Source to Custom. Set Width to 5 Inches. Set Height to 7 Inches. Set Resolution to 200 Pixels/Inch. Click OK to set your crop settings.



2 Stop the recording

Drag the corner handles to tighten the crop overlay around the subject. Hit Enter to lose some of the backdrop. Hit the Stop icon in the Actions panel to stop recording the edits. You now have a cropped photo measuring 5x7 inches.



3 Apply the Action

You can now open similarly composed shots in the series. Click your crop and resize Action. Hit the Play Selection button. The images will be automatically cropped and resized to the desired composition and resolution.

Create a more complex Action

Add extra instructions to your Actions so they do more

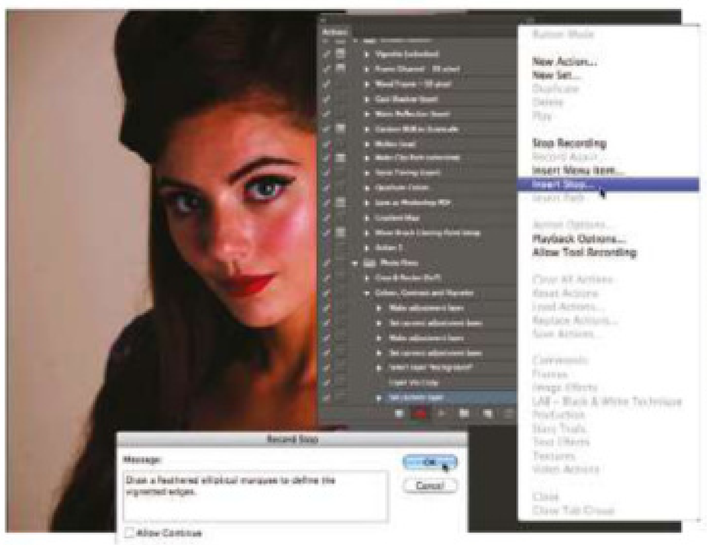
Now we'll create a more complex photo-fixing Action that improves contrast, cools down the warm colour temperature of our studio shots and adds a vignette to the edges.

The vignette-creating section of the Action involves drawing an elliptical marquee to select the edges that you want to darken. You can get the Action to duplicate the marquee shape that you drew when recording the Action, or you can tell it to stop in mid-flow so that you can draw a new marquee to suit the composition of each image. Start by opening the first in the series. Create a new Action called Colour, Contrast and Vignette and save it in the Photo Fixes Set. Click Record. For this image we created a new Levels adjustment layer and set the white highlights slider to 231 and the grey midtones slider to 1.15 to boost the contrast. We created a new Photo Filter adjustment layer, set it to Cooling Filter (82), and reduced the Density to 19. We clicked the Background layer and pressed Cmd/Ctrl+J to duplicate it, then set the Blend mode to Multiply. Follow the three-step walkthrough below to add some instructions to an Action so that you can customise its vignette by manually drawing a marquee.





Complex Actions



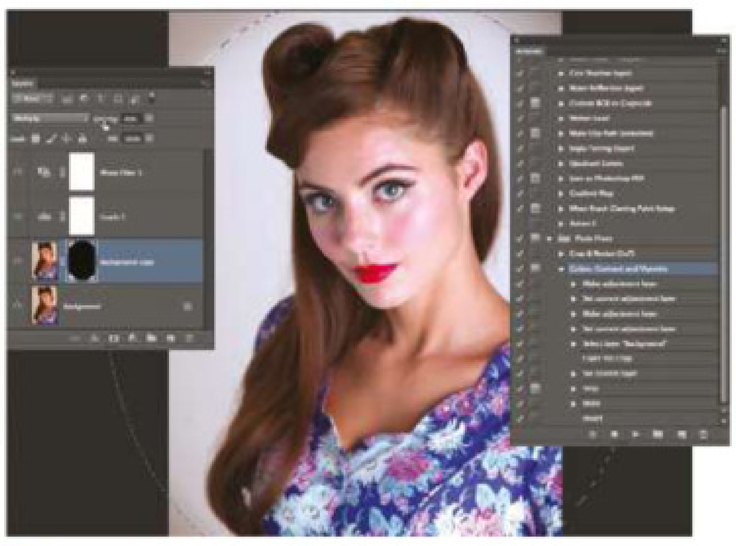
1 Insert a stop

After recording tweaks to colour and tone (see above), click the little fly-out icon at the top right of the Actions panel and choose Insert Stop. A command window will now appear. Type the message 'Draw a feathered elliptical marquee". Click OK.



2 Finish the recording

Don't draw a vignette at this stage. You can do so when playing back the Action to edit various portraits. Click the Add layer mask icon to add a mask to the Background copy layer. Press Cmd/Ctrl+I to invert the mask. Press the Stop button.



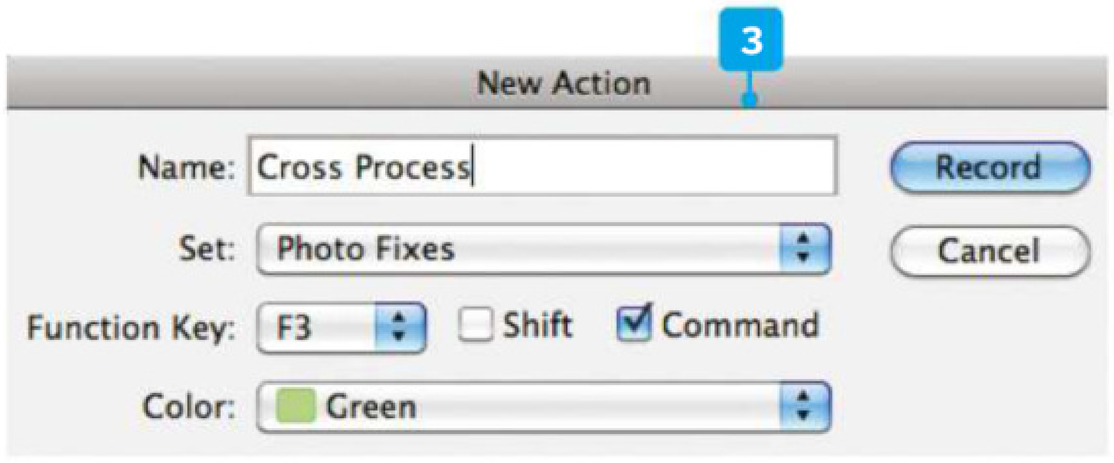
3 Test the Action

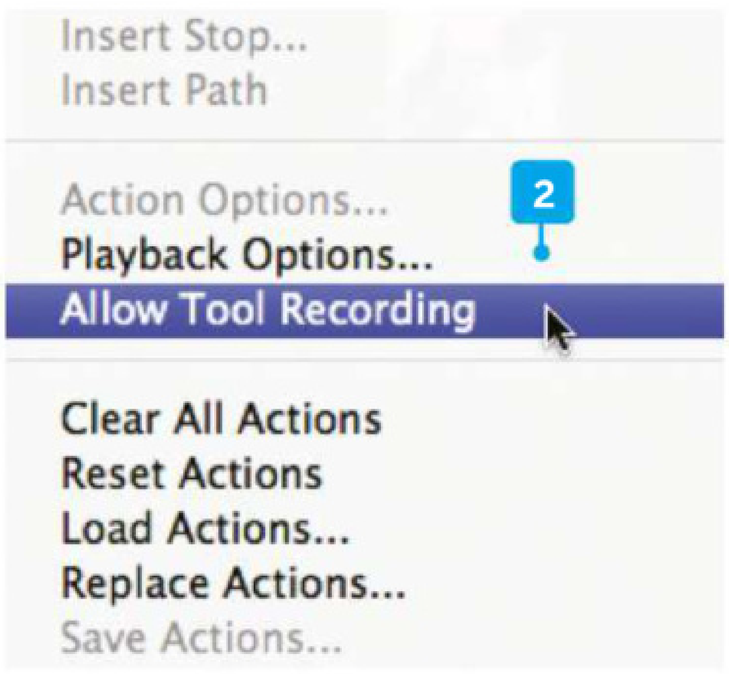
Choose File›Revert to test the Action. Click the Action and hit the Play icon. Click Stop when the message you created in the previous step appears. Draw a feathered circle with the Elliptical Marquee tool, then click the Play button again to continue.

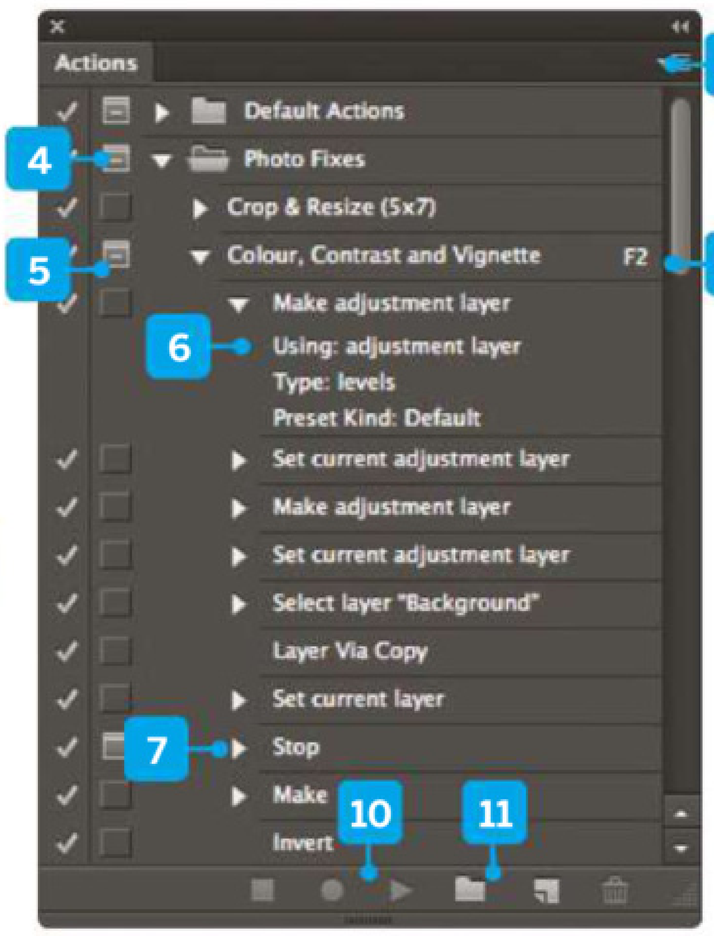
Photoshop Anatomy Action options

Get even more from Actions with our in-depth look at this useful tool's extra attributes











1 CREATE DROPLET

Choose File>Automate>Create Droplet. You can then turn any Action into a droplet. Drag a photo onto the droplet to open the image and apply the Action to it.

2 ALLOW TOOL RECORDING

This tick-able option in the Action panel's fly-out menu enables you to include the strokes of tools such as the Burn tool in your Action.

3 NEW ACTION

When you create a new Action you can choose which Set to keep it in, assign a keyboard shortcut to it and colour code it.

4 PHOTO FIXES

Click the triangle next to a folder icon to list the Actions contained in that set. Click it again to close the set.

5 DIALOG ON/OFF

Click here to toggle any dialog boxes you've set to appear (to define the attributes of a process, for example) in the Action on or off.

6 ACTION EDITS

Toggle each step inside an Action to discover which adjustments or commands will be applied to your image with that particular Action.

7 STOP

You can make the automated Action stop at any stage so that you can perform a manual edit such as drawing a marquee.

8 COMMANDS

If you click the Action Panel's fly-out icon you can load in new sets of Actions such as Commands. This is full of Actions that perform typical commands.

9 KEYBOARD SHORTCUTS

Many Actions in a set can be triggered by keyboard shortcuts. In the Commands set you can clear the history states and clipboard by pressing Shift+F3.

10 TRANSPORT BUTTONS

Here you'll find the Actions panel's Stop, Record and Play controls. You would use these to insert a manual action with the automated ones.

11 CREATE NEW SET

Click this folder icon to create a new set of Actions. Like Layer Groups and layers, you'll find this feature most useful when the number of Actions grows.

12 BUTTON MODE

After colour coding an Action, you can choose Button Mode from the Action panel's fly-out menu. You can then click a coloured button to trigger the Action. ■



Refine Edge

Get perfect selections every time, no matter how complicated the subject, with the powerful Refine Edge tool

Many photo-fixing tasks involve making selections. You may need to select a specific part of an image, such as a bland sky, and replace it with something more interesting, or tone down an over-exposed sky without altering the correctly exposed landscape. Alternatively, you might want to cut out a model from an image, so that you can composite her into a new background image. The Tools panel contains several selection tools, from the handy but basic marquee tools to the intelligent Quick Selection tool. The selections these tools create are demarcated by a border of animated dashes. However, it's unlikely that the edges of a selection you make will be perfect, and the Refine Edge dialog enables you to fine-tune it's shape, width, position and softness.

When you make a selection using tools such as the Rectangular Marquee or Magic Wand, you'll notice that the Refine Edge button becomes active in the Options bar. The button will also appear if you make a selection using menu-based commands such as Color Range. As a rule, if a tool creates a selection marquee you'll be able to fine-tune it with Refine Edge. You can also call up the Refine Edge dialog by choosing Select›Refine Edge, and you can use it to fine-tune the edges of a layer mask.

Before the Refine Edge tool was introduced, to fine-tune a selection marquee you had to go to the Select›Modify menu and apply refinements one at a time. The most useful of these were Smooth, Expand, Contract, and Feather. Refine Edge presents all these options in an easy-to-use window, enabling you to apply them interactively and preview the results. There's also a Radius slider, for adjusting the width of the edge over which refinements are applied. Refine Edge has many more tricks up its sleeve, as you'll discover...

Replace a background

Use Refine Edge to blend a subject into a new background

When you're shooting public events, you have little control over your subjects' movements. In this image, the naturally posed soldier looks good in profile, but the partially obscured vehicle and figure in the background are distracting. We could have repositioned ourselves to cut out the background clutter, but the main subject might have moved by then. Thanks to selection tools and layers, we can isolate the soldier from the background, and improve the composition by dropping in something more interesting from another photo taken at the same event.

When you select a person or object, they can look obviously 'cut out' because they have a hard edge, and by feathering the edge of a selection you can make a subject blend in more naturally and effectively with the new background, to create a more convincing composite. We'll show you how to soften an initial selection using Refine Edge, and how to ensure that no tell-tale pixels from the original background are left clinging to the outline.

Kick off by opening a picture containing a figure. Choose the Quick Selection tool, tick Auto-Enhance, and brush over the figure to select him. You can now fine-tune the selection by following the steps below...

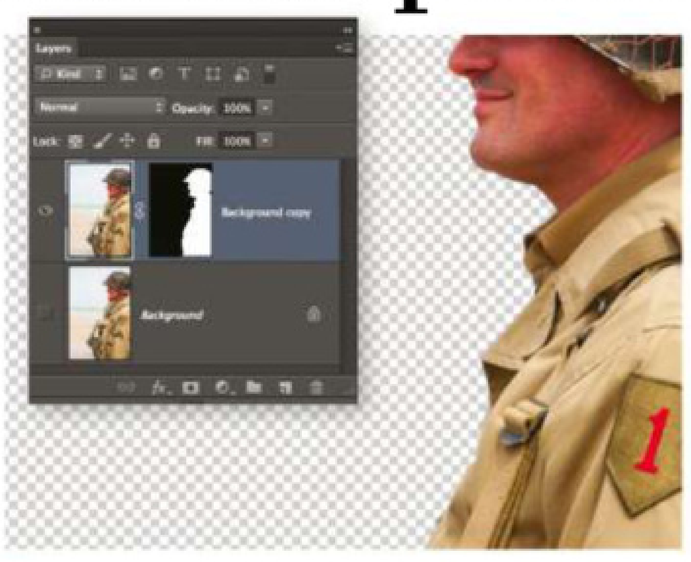


Create a seamless composite



1 Soften the edges

After selecting the figure, click Refine Edge in the Options bar. Choose the On Black preview, so that you can see the traces of background pixels. Set Smooth to 11 and Feather to 2.5 to soften the edges, and set Shift Edge to −15%.



2 Decontaminate

Tick Decontaminate Colors, and set Amount to 45%: this shifts colours of the background still clinging to the subject's edge closer to those of the subject, so they're less noticeable. Set Output to New Layer with Layer Mask. Click OK.



3 Add a new background

Open a new background image. Go to Select›All, then Edit›Copy. Target the main document, go to Edit›Paste, and move the layer below the subject. Choose Filter›Blur›Gaussian and set an appropriate Radius to make the images match.

Challenging selections

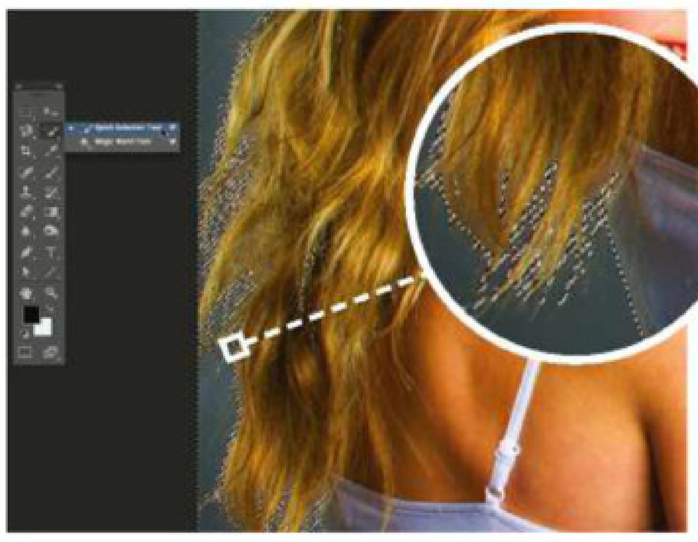
Select complex edge detail, such as fine hair, using Refine Edge's Radius options

Some subjects have a mix of edge detail, with both sharp, well-defined areas and softer, fine details. Take our studio-shot model, for example: the outline of her arm and shoulder is nice and sharp, while her flyaway hair is much more complex and fine. We can select the studio backdrop easily enough using the Magic Wand tool, but if we use Refine Edge to Feather or Expand the selection to include more hair detail, we run the risk of adding unwanted background pixels to the well-defined edges.

The Radius slider in Refine Edge enables you to adjust the width of the edge over which refinements are applied, but in older versions of Photoshop you could only adjust the Radius of the entire outline. In CS5, a Smart Radius option was added, and when you enable this the edge radius will be adjusted automatically to take account of the detail in different areas, so it'll be narrower where edges are sharp, and wider where edge detail is less well-defined. For even greater precision, you can manually target problematic areas using the Refine Radius tool, which enables you to adjust the radius in localised areas with a brush. See the tutorial below...



Selecting complex edges



1 Make a selection

Choose the Magic Wand tool, set Tolerance to 20 and clear Contiguous. Click the backdrop to select it. Next, take the Quick Selection tool and click the Subtract from selection button. Brush over the background to remove it from the selection.



2 Refine Radius

Click Refine Edge, and set View to On Black. The selected hair will look sharp and jagged. Tick the Smart Radius box, and set Radius to 3 pixels. Click the Refine Radius icon. Set the brush Size to 100, and brush around the edges of the hair.



3 Clean up the colours

To hide the remaining hints of backdrop, tick Decontaminate Colors and set Amount to 60%. Set Output to New Layer with Layer Mask, and click OK. You can now paste in a new backdrop, and you'll see that the hair has been preserved.

Photoshop Anatomy Refine Edge options

Get even more from Refine Edge with our close-up look at its editable options



1 SMOOTH

When you select an object, its edges may include jagged or blocky clumps of background pixels. Use this slider to smooth out the edges.

2 FEATHER

Increase the Feather value to soften the edges of the selection. This will help a selected subject blend more effectively with its new surroundings.

3 CONTRAST

Increases the contrast between partially selected pixels, like increasing the contrast between light grey and dark grey areas of a layer mask.

4 SHIFT EDGE

This slider enables you to strike a balance between revealing edge details and hiding fringes of unwanted background pixels.

5 LAYER MASK

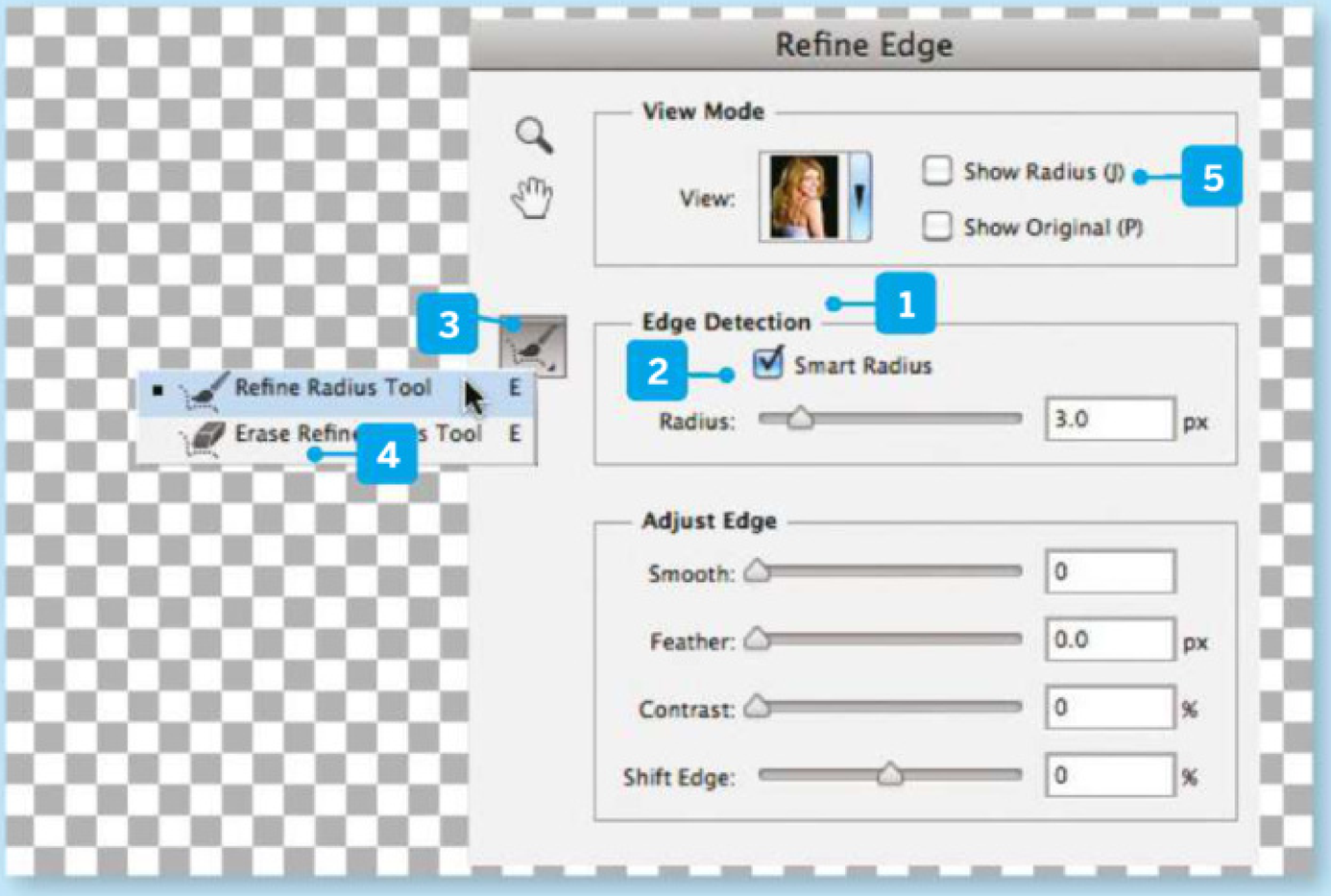
If you output your refined selection as a New Layer with Layer Mask you can continue fine-tuning it by applying white or black brushes to the mask.

6 POINT OF VIEW

Choose the View option that best enables you to see the edge pixels, for example On Black if you're trying to select blonde hair.

Understanding... EDGE DETECTION

Many selection subjects, especially people, have outlines that comprise both hard and soft edges. The Edge Detection section **[1]** of the Refine Edge dialog enables you to select varied edges more effectively. If your subject's edges vary in softness, tick Smart Radius **[2]**. This automatically increases the width of the edge over which refinements are applied where required. Click and hold the brush icon **[3]** to access the Refine Radius tool. This enables you to brush over areas to increase the edge width. If the tool reveals unwanted background pixels, use the Erase Refinements tool **[4]** to make the edge narrower again. Click Show Radius **[5]** to display the radius. ■





The Eraser tools

Create quick and effective composite images using the underrated powers of the Eraser tools

When faced with the challenge of selecting and replacing an unwanted background we're spoilt for choice thanks to Photoshop's comprehensive collection of tools. If you gave three Photoshop users the task of removing the clutter in our opening image's background you might see three different approaches.

To remove the sky, Photoshop user number one might reach for the Magic Wand to sample the sky pixels and then Shift-click to add other background details to the selection, and use Edit›Cut to remove the selected pixels.

Due to the complexity and variety of some of the background details, Photoshop user number two might decide to select the parrot instead of the background, using the Quick Selection tool. A few swipes of this brush-based tool would select most of the parrot, although some of the bird's feathered edges would elude the initial selection.

If Photoshop user number three moved his cursor over the Eraser compartment it might raise a few eyebrows. It's like using a saw when you need a scalpel, isn't it?

For most of us, the Eraser is probably the last tool we'd think of reaching for when faced with a compositing challenge of any complexity. However, in this Tool School we'll show you why the Eraser tool is capable of much more precise compositing tasks than you'd expect.

The Eraser tool comes in three variants. The standard Eraser enables you to modify options such as size, softness and flow. You use it to permanently remove unwanted pixels. The Background Eraser samples pixel colours and tones, enabling you to paint over the blue sky to remove it. The Magic Eraser tool isn't brush-based like the others. It works in a similar way to the Magic Wand, enabling you to select a range of similar pixels and delete them with a click.

Erase unwanted backgrounds

Get the Eraser tools to gang up so that you can select and delete unwanted backgrounds

When you use any Photoshop tool to create an initial selection marquee it's unlikely to be a perfect selection. You may need to convert it into a layer mask (by choosing Layer›Layer Mask›Hide Selection) and then apply a black brush to the mask to remove any remaining bits.

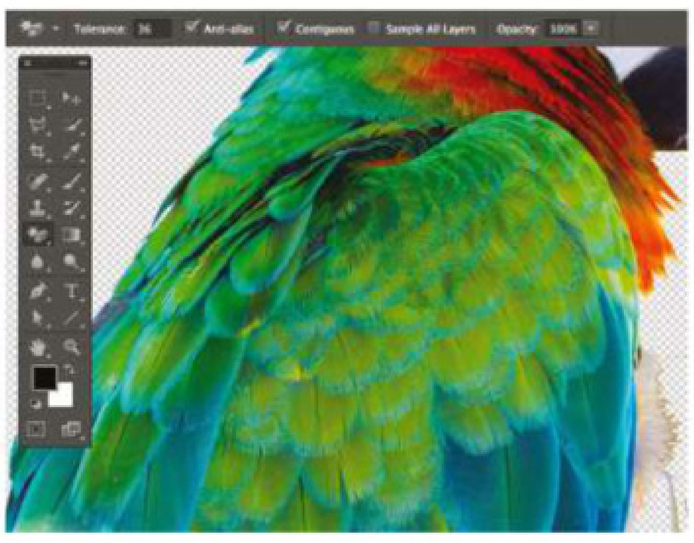
Alternatively, you'd need to apply white strokes to the mask to restore details. Layer masks are non-destructive, so those hidden details are still available.

You may fear using the Eraser tool and its cousins – the Magic Eraser and the Background Eraser – because they don't create selection marquees that can be fine-tuned with masks, but instead permanently delete pixels.

By getting the three Eraser tool variants to work as a team, we can remove our unwanted background without worrying about fine-tuning selection marquees. Load an image similar to our parrot and go to the Layers panel (Window›Layers), then double click the Background thumbnail to unlock it. Press Cmd/Ctrl+J to duplicate the layer. You can then click the eye icon to hide the Background layer (and use it as a safety net in case you need to start editing from scratch).

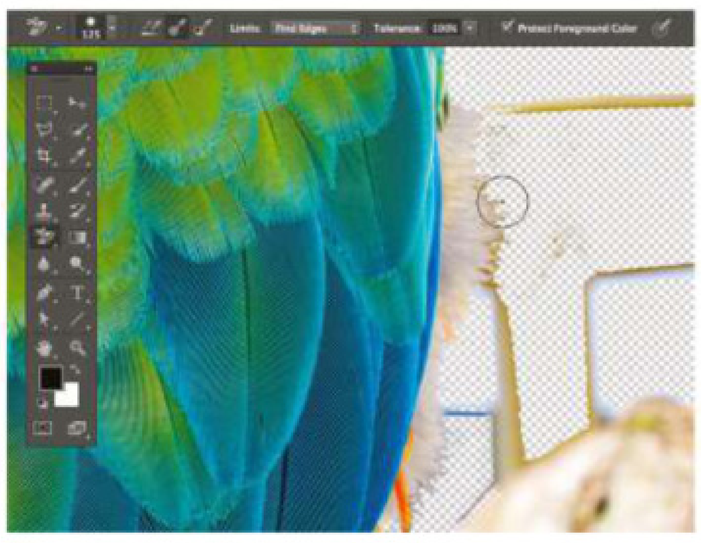


How to cut out with the Eraser tools



1 First strike

Grab the Magic Eraser. Set Tolerance to 34 and tick Contiguous. Click to delete the blue sky. Reduce Tolerance to 24 and click to delete the cream and yellow background while preserving the similarly coloured white feathers.



2 Erase the edges

Grab the Background Eraser. In the Brush Preset picker, choose a soft tip with a Size of 125. Tick Sampling: Once. Set Limits to Find Edges. Erase pixels adjacent to the white feathers. To erase less fine edges, set Limits to Discontiguous.



3 Get more control

Grab the Eraser tool. Remove any pixels that aren't adjacent to the bird's fine edges. To erase background pixels near the perch, hold down Shift and click to place a point. Click the cursor on another point and you'll erase in a straight line.

Background and Magic Erasers

Fine-tune the way your Eraser tools behave, and learn some new tricks and techniques

Each Eraser tool has its own strengths and weaknesses. The Eraser tool is a blunt instrument that creates pixel destruction wherever it goes, mopping up surviving pixels that have evaded the more delicate work of the other two Eraser tools.

The Magic Eraser performs a more targeted strike on unwanted background details. Give it the colour and tone of a large swathe of similar pixels and these areas will be erased with a click.

The Background Eraser is the most sophisticated member of the team. It combines the Magic Eraser's ability to recognise sampled colours and tones with the standard Eraser's editable brush-based properties, making it smart and powerful. In this section we'll show you how to get the Magic and Background Eraser tools to perform more effectively.

Each Eraser tool has its own icon. The Magic Eraser's irregularly shaped icon makes it tricky to place it on a precise spot. Because of the icon's shape, you may click to remove some sky but end up clicking the bird's beak by mistake. By pressing Caps Lock you can replace the default icon with a crosshair, enabling you to target pixels with much more precision.



Who's a pretty boy, then?



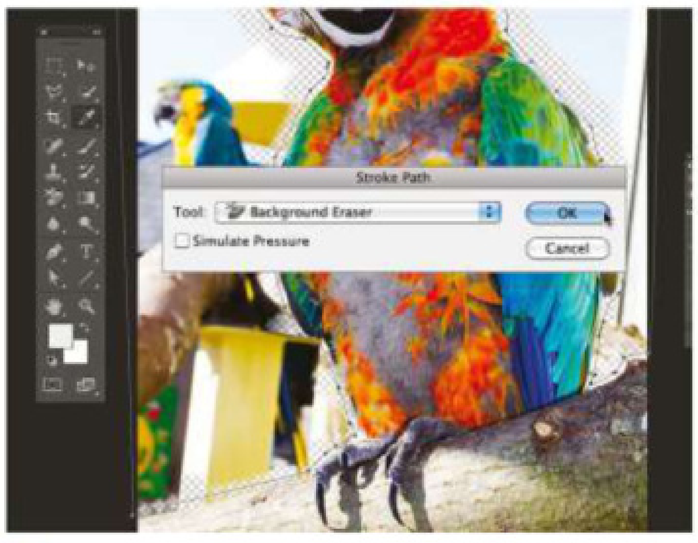
1 Draw a path

Grab the Pen tool. In the Options bar, set it to Path. Place anchor points around the bird. Once a rough path follows the parrot's outline, place a few points around the sides and top of the frame. Place the last point on the first to complete the path.



2 Sample the bark

Grab the Background Eraser tool. Set Size to 300. Set the sampling option to Continuous. Set Limits to Find Edges. Reduce Tolerance to 20%. Tick Protect Foreground Color. Hold down Alt and click to sample some of the bark.



3 Erase the path

Click the Direct Selection tool. Right click the image and choose Stroke Path. Set the Tool to Background Eraser. Click OK. This Eraser will erase the background pixels. Remove any remaining background with the Eraser tool.

Photoshop Anatomy The Eraser tools

Tweak tones with more precision by modifying the behaviour of these brush-based tools





1 BRUSH PRESET PICKER

Click here to modify the hardness and size of the Eraser and Background Eraser tools. The Eraser tool also supports the new Bristle Brush presets.

2 MODE

When using the Eraser tool you can use this drop-down menu to change the Eraser type; from a soft brush to a sharp pencil to a square block.

3 FLOW

A lower percentage produces a weaker stroke, enabling you to build up your erasing in more controllable increments.

4 ERASE TO HISTORY

You can use this option to erase recent strokes with the Eraser tool. Read on below for more details on how to do this.

5 SAMPLING

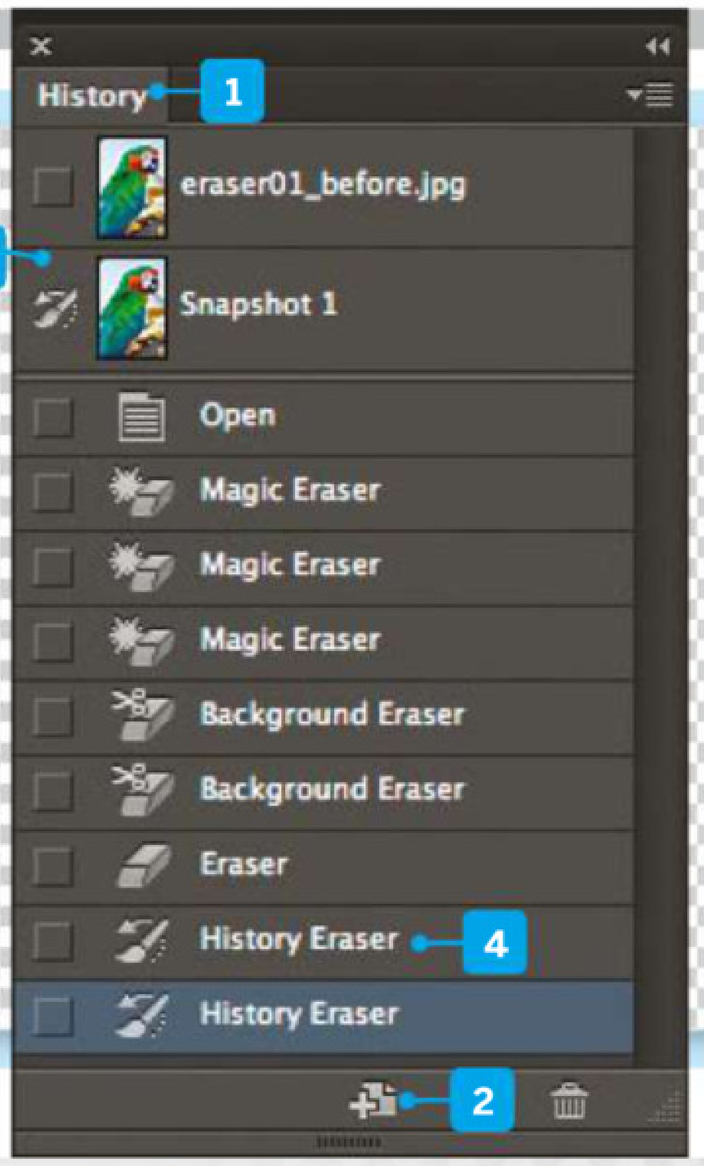
You can set the Background Eraser to Sampling: Once and it will erase similar pixels, or set it to Continuous to erase a wider range of background details.

6 FORBIDDEN COLORS

This useful option stops the Background Eraser from erasing a particular colour. Alt-click to sample the colour you want to protect.

Understanding... THE HISTORY ERASER

Our parrot's feathers are a challenge to isolate. The Background Eraser may erase some of the feathers as well as the background. You can press Cmd/Ctrl+Z to undo the stroke and restore the feathers, but you may not notice the problem until much later. To restore key detail, you can summon the History Eraser. For this to work, you need to start your project by going to Window> History to open the History Panel **[1]**. Click the little camera icon to take a snapshot of the unedited image **[2]**. Use the Eraser tools to edit your image. If you make a mistake, click here to choose a history state **[3]**. You can then choose the Eraser tool, tick its Erase to History option, and paint over the missing pixels **[4]**.



SOFTEN EDGES

The Background Eraser does a great job of deleting sampled background pixels while leaving contrasting foreground subjects untouched. However, when faced with delicate feathery detail that has a similar colour and tone to the background, you may create blocky edges. To smooth these problematic areas out, simply paint over them with the Blur tool to create a soft focus effect. ■





Lens correction

Use the new CS6- and CC-only filter to counteract even the most extreme unwanted effects of lens distortion

When you shoot with a wide-angle lens you may notice that the scene's horizontal and vertical lines appear curved. This is referred to as geometric distortion. The amount of lens-induced geometric distortion varies from lens to lens (and it also depends on the focal length you've used to capture the scene), but these dramatically curved lines can detract from the authenticity of a shot. Distorted lines that bulge outwards are said to be suffering from barrel distortion, while lines that curve inwards are afflicted by pincushion distortion.

Older versions of Photoshop CS enable you to tackle most types of lens distortion by using the Lens Correction filter. Geometric distortion (curved lines) can be straightened using that filter's Remove Distortion filter. Perspectival distortion – where the lines converge inwards towards the top of the frame – can also be counteracted by adjusting the Lens Correction filter's Horizontal or Vertical Perspective sliders. The Lens Correction filter is pretty effective, but it has limitations, especially when trying to counteract the extreme geometric distortion produced by wide-angle fisheye lenses.

When using the Lens Correction filter, you can speed up the correction process using Lens Profiles. These recognise the make and model of your lens by reading the metadata attached to the image, so they know how much geometric distortion there will be at any given focal length. The Lens Correction filter's profiles provide a way to automatically counteract geometric distortion such as curved horizons, but they can't deal as effectively with perspectival distortion.

The new Adaptive Wide Angle filter does a much better job of dealing with both geometric and perspectival distortion. It does so by providing different tools to the Lens Correction filter's slider-based solution.

Correct perspectival distortion

Use the new Adaptive Wide Angle filter to straighten converging verticals

If you shoot a tall building from a low angle you risk adding perspectival distortion to the image. By tilting the camera upwards to capture the top of the building, you'll notice that the vertical walls appear to converge inwards instead of running parallel with the edges of the frame.

Photoshop CS's Lens Correction filter can counteract perspectival distortion in a photo like the one on the right by letting you drag the Vertical Perspective slider to the left.

This makes the top of the frame appear to lean towards the camera, straightening the converging verticals so that they run parallel with the sides of the frame. However, in this case you'll need to lose the top of the building to get the walls looking straight, which spoils the composition of the image and loses important detail.

Instead, go to Filter›Adaptive Wide Angle and use the advanced correction tools to do a better perspectival correction job.

In the Adaptive Wide Angle window, set the Correction menu to Perspective. Set the Scale slider to 86% to zoom out and see more of the edges. You're now ready to follow the walkthrough below.

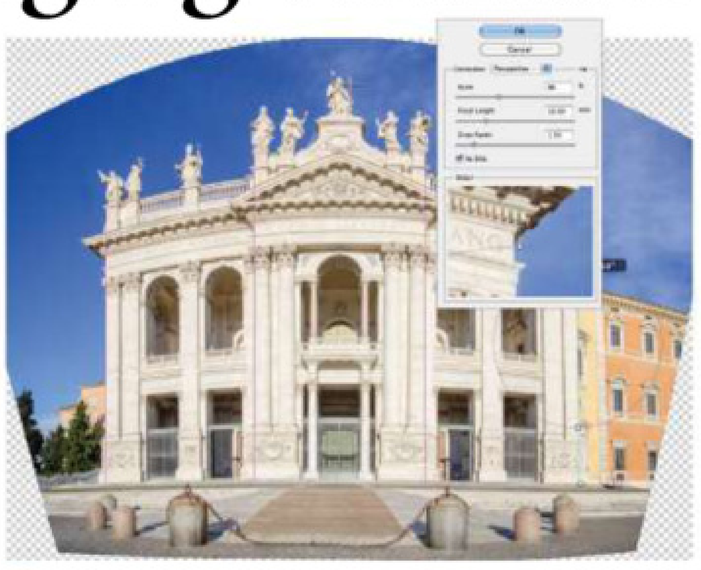


Correct converging verticals



1 Draw constraints

Grab the Constraint tool. Place a point at the top left corner of the building. Place another point at the bottom left corner. A constraint line joins the two points. Draw two more vertical lines in the middle and one at the right of the building.



2 Rotate the constraints

Click the left constraint line. Drag the white circle to 90°. This straightens the building's left-hand side. Rotate the other constraint lines to make them 90°. Shift-click a vertical constraint line to set it to 90° automatically.



3 Scale transform

Click to draw constraints along any warped horizontal lines. About seven lines should be enough. Shift-click each horizontal line to make it run parallel with the bottom of the frame. You may need to Shift-click vertical lines too. Click OK.

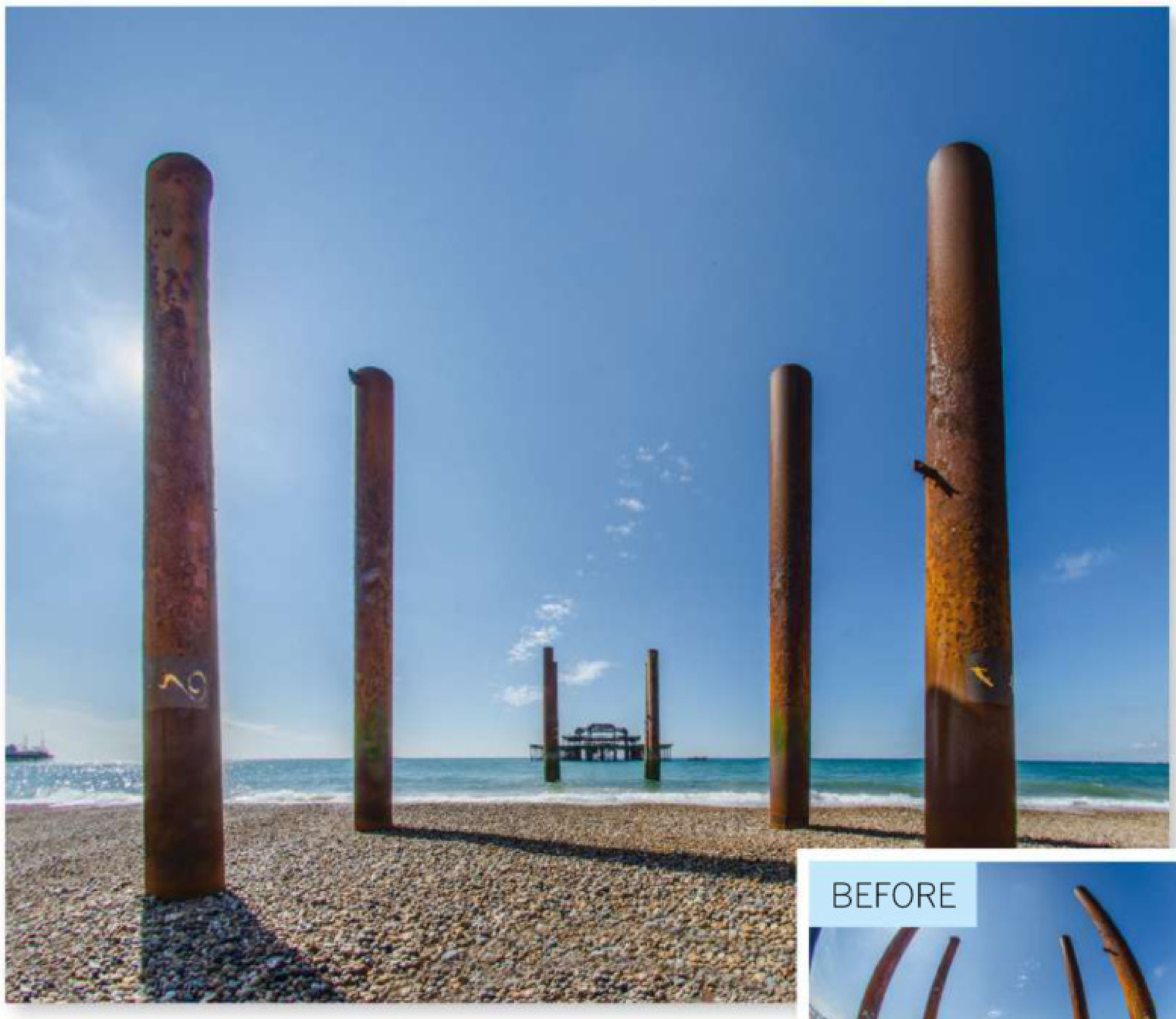
Correct fisheye lens distortion

Straighten curved verticals and horizontals in a fisheye image

Fisheye lenses like the Sigma DG 8mm f/3.5 EX enable you to capture a much wider view of a location than you could with a conventional lens. However, by using a fisheye lens your shot's horizontal and vertical lines will be warped into curves, creating a circular shot surrounded by a black border that features parts of the lens's interior. The old Lens Correction filter has an Auto Correction tab that enables you to use Lens Profiles to counteract some of the distortion in a fisheye photo. The Auto Correction tab's Geometric Distortion option can straighten the curved pillars of this image's derelict pier, but it will still struggle to iron out the bend in the horizon and the pillars will still suffer from perspectival distortion.

Open a fisheye image and go to Filter›Adaptive Wide Angle. You'll see the camera model and lens specifications appear at the bottom left, so we know that the filter is aware of the distortion produced by the lens when set to a particular focal length.

To help produce the best results, set Correction to Fisheye. The black interior of the lens will be removed from the edges. Follow the three steps below, then crop out the edges.





Fisheye corrections



1 Polygonal constraint

Grab the Polygon Constraint tool from the filter's mini toolbar. Place four points around the corners of the left pillar. Place the last point on the first to complete the selection. The pillar's curved lines will straighten. Do the same for the other three.



2 Go vertical

Place the cursor on the left pillar's bottom left control point. Shift-click to force the polygon's tilted lines to become vertical. This will straighten the pillar in an instant. Do the same for the other three pillars. Select the Constraint tool.



3 Straighten the horizon

Draw a line that follows the curved shoreline. To help the line follow the shore, drag the middle control point upwards. Draw another line to straighten the distant horizon. Shift-click a control point to make the horizon run parallel with the frame.

Photoshop Anatomy Adaptive Wide Angle

Get to know the Adaptive Wide Angle filter's powerful tool set



1 CONSTRAINT TOOL

Use this tool to draw a line that follows a curved line in the image. Pixels close to the constraint line will then be straightened.

2 POLYGON CONSTRAINT TOOL

Use this tool when straightening complete objects like the pier support struts in this image. Click to place the last point on the first to complete the selection.

3 MOVE TOOL

Use this tool to move the image around so that you can see edge detail when you've zoomed in for finer control.

4 ROTATE

The Constraint tool has control points that enable you to bend or rotate it so that it follows the distorted lines more effectively.

5 CORRECTION

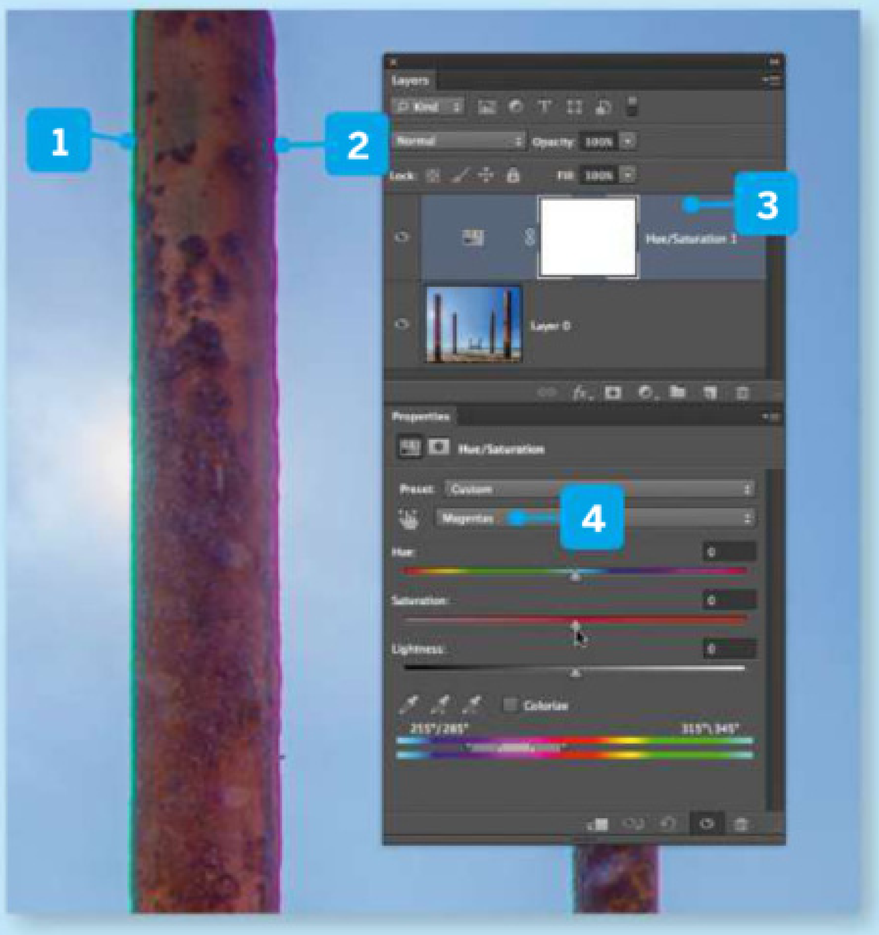
Adaptive Wide Angle knows what lens you used to capture the image, but you can still give it a hand by choosing an appropriate projection map here.

6 METADATA

To remove distortion effectively, the Adaptive Wide Angle filter needs to know the focal length and crop factor used when taking the photo.

Understanding... CHROMATIC ABERRATION

The Adaptive Wide Angle filter does a fantastic job of removing lens-induced geometric and perspective distortion, but it can't remove other lens-related artefacts like chromatic aberration. There's a cyan fringe clinging to the left of the pillar **[1]** and a magenta fringe running along the right-hand side **[2]**. These fringes are caused by the lens's inability to focus different wavelengths of light on the same part of the sensor. To remove them, you could use the filter's Chromatic Aberration sliders, but these don't always work. Instead, add a Hue/Saturation adjustment layer **[3]** and set the menu to Magenta **[4]**. You can then reduce the Saturation of that particular colour.



TRANSPARENT EDGES

Once you've used the Adaptive Wide Angle filter to correct distortion, you'll end up with transparent edges. To extend less complex areas such as skies and beaches into the blank space, select the transparent areas and go to Select>Modify>Expand and choose 1 pixel. Then choose Edit>Fill and use Content-Aware. This will fill the empty space with colour and texture. ☐





Transform tools

Distort, scale, rotate and even warp layer content with the Transform command's suite of tools

This lesson we look at a set of Photoshop tools that are designed to help you perform a wide range of everyday edits. All the Transform tools work in a similar way – they enable you to reposition some or all of the pixels that make up your image to produce a variety of results. The Transform tools are Photoshop's basic infantry. Each member of the Transform platoon moves a picture's pixels around, but in a variety of ways.

Stationed in the Edit›Transform menu, different Transform commands can be deployed depending on the task in hand. If you're compositing elements from one shot with another then you can use Transform›Scale to shrink a layer's components to fit the new background. You can change the angle of a layer's component using Transform›Rotate.

When you apply a Transform command, a bounding box will appear around the layer's content. Depending on the command, you can drag various control points to scale, rotate or distort the content to suit your creative requirements.

The Perspective tool mirrors the positions of the corner control handles to equally transform horizontal or vertical perspective. This enables you to correct perspectival distortion without rummaging around in the Lens Correction filter. We'll put the Perspective Transform tool through its paces later in this Tool School. The Distort tool lacks the constraints of the Perspective tool, enabling you to drag any of the bounding box's nine control handles to dramatically distort the layer's content.

To help you transform with more precision, you can refer to a collection of boxes in the Options bar. These show a variety of attributes like the Width or Height of the transformation or even the X and Y coordinates of the Transform command's central pivot point.

Take to the skies!

Create an action-packed aerial dogfight by combining a variety of cut-out images

By transforming your source files, you can alter the appearance of reality in really creative ways. By shooting the same two planes a few times, we were able to add them to separate layers and transform their scale, position and angle of rotation to create two warring factions engaged in a fight to the death.

We'll show you how to apply various Transform commands in our step-by-step walkthrough below. However, before you start to transform a plane you'll need to isolate it from its original background. Open an aeroplane photo and double click the Background layer's thumbnail. Grab the Magic Wand tool and set it to a Tolerance of 35. Tick Contiguous. Shift-click to select all bits of sky including those between the wings. Choose Select›Inverse. Click the Add layer mask icon to hide the blue sky. Paint with a black brush on the mask to remove any remaining blue sky pixels. Apply a white brush to the mask to restore any missing blue paintwork on the plane's tail. Right click the layer mask and choose Apply Layer Mask. Press Cmd/Ctrl+J to duplicate the layer. Use Filter›Blur›Motion Blur to add blur to the top layer. Paint on a new layer mask to blend the blurred plane with the original. Then choose Layer›Merge Visible.



Transform the layer content



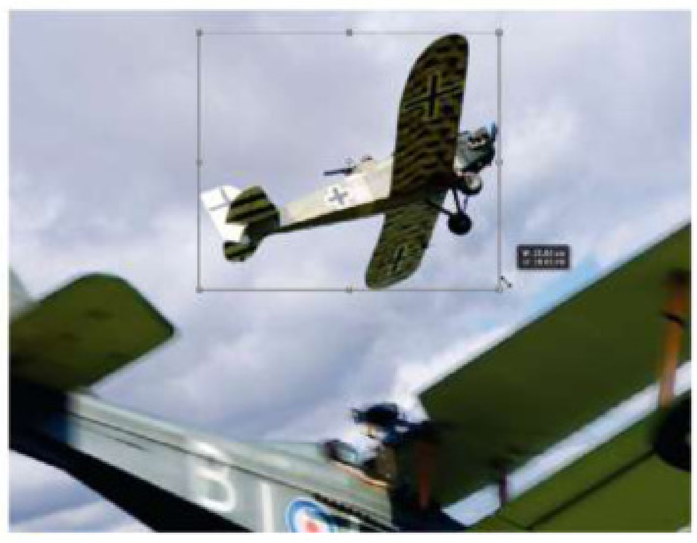
1 Move transform

Once you've isolated your subject, choose Select›All and then Edit›Copy. Open an aerial background and then Edit›Paste the copied plane into it. Use the Move tool to drag it left and down. Add another aeroplane to the document.



2 Rotate transform

Use the Move tool to move it into position. Tick the Show Transform Controls option. Place the cursor outside the bounding box to activate the Rotate Transform tool. The cursor will change. Drag to rotate the plane −27 degrees. Hit Enter.



3 Scale transform

Click the corner handle to scale the plane. Hold down Shift to constrain the proportions and drag the corner handle to scale the plane by about 62%. Add and transform more aeroplanes using the same techniques.

Perspective distortion

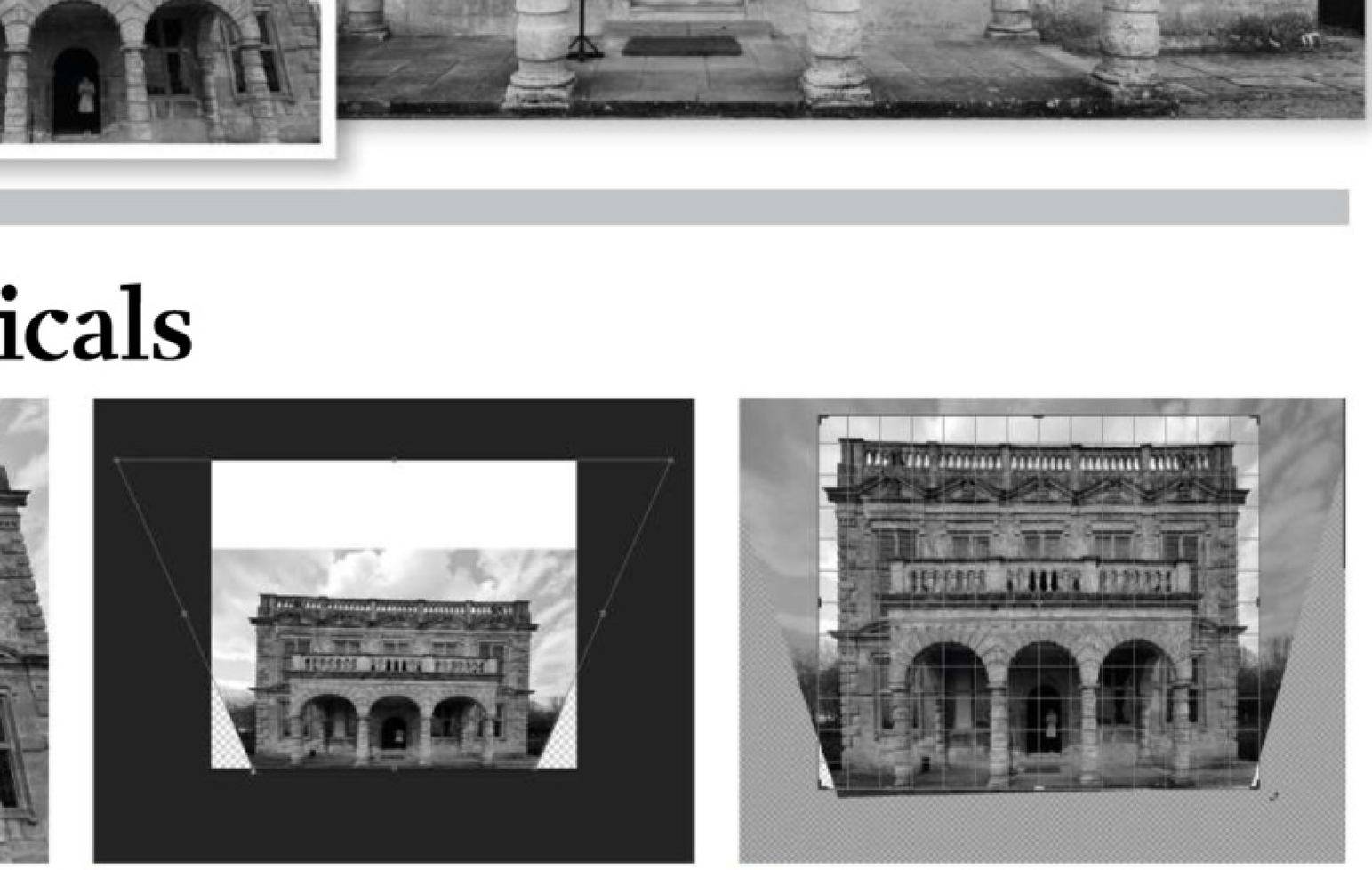
Simple tips to correct perspectival distortion and straighten skewed edges

Most buildings have vertical walls that extend at a 90-degree angle from the ground. However, in some architectural photos the walls appear wider apart at the ground, but tilt inwards towards the top. These converging vertical lines are created by perspectival distortion. As you get closer to a building, you need to tilt your camera to get the top of the structure in shot. This increases perspectival distortion.

To avoid these converging vertical lines you could try shooting your subject from a more distant vantage point, so you no longer need to tilt the camera upwards. This will help the subject's walls to run parallel with the edges of the frame. Fortunately, Photoshop's Perspective Transform command enables you to counteract perspectival distortion.

However, by distorting the shot you can end up creating transparent areas in lower corners.

You can crop out most of these transparent edges or use the Distort command to stretch the edge pixels over them. See the tutorial below.





Vertical verticals



1 Extend the canvas

Open a photo of a building. Before we straighten the converging verticals, we'll need to make some space at the top of the frame. Go to Image›Canvas Size and increase the size of the canvas. Set the Canvas Extension Color to White. Click OK.

2 Correct perspective

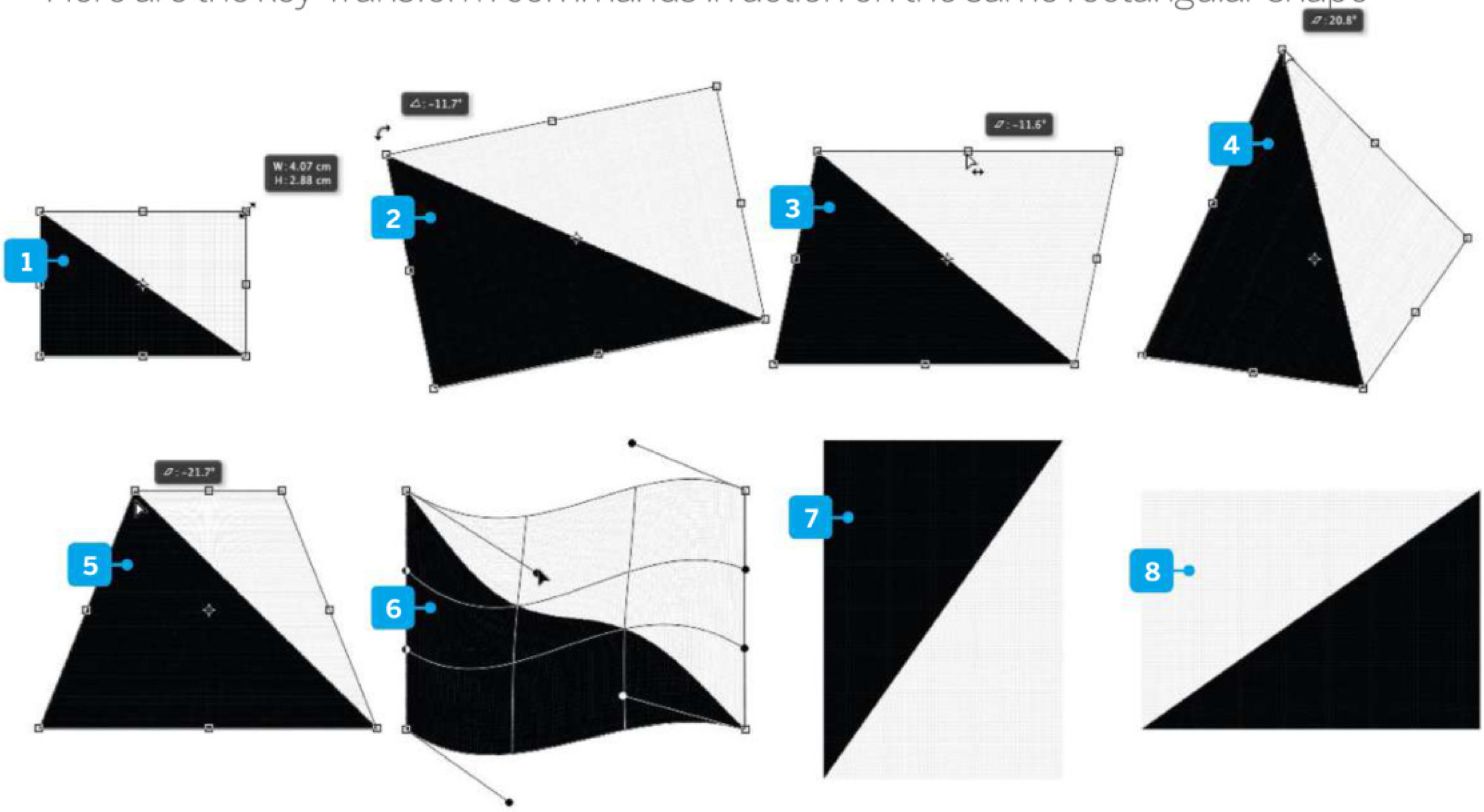
Double click the Background layer. Choose Edit›Transform›Perspective. Drag the top left control handle left to straighten the top of the building. Drag the bottom left control handle right until the walls run parallel to the frame edge.

3 Crop and rotate

Crop the transparent areas at the bottom of the corrected image. Drag outside the box to rotate and straighten the wonky horizontal lines. Hit Enter. Finally, use Edit›Transform›Distort to fine-tune the edges of the frame.

Photoshop Anatomy Transform command

Here are the key Transform commands in action on the same rectangular shape



1 SCALE

Choose Edit>Transform>Scale and then drag a corner handle to shrink or enlarge a layer's content.

2 ROTATE

Choose Edit>Transform>Rotate. Drag outside the bounding box to rotate a layer's (or selection's) content.

3 SKEW

Choose Edit>Transform>Skew to activate this option. You can then skew the shape left or right.

4 DISTORT

Choose Select>Transform>Distort and then drag any of the box's control handles to move them independently.

5 PERSPECTIVE

Choose Select>Transform>Perspective. Drag a corner handle and the opposite handle will move by the same value.

6 WARP

Choose Edit>Transform>Warp. Drag the handles to curve the shape and produce organic-looking transformations.

7 ROTATE

There are three fixed value Rotate options. Here we've rotated the shape 90 degrees clockwise.

8 FLIP

The Edit>Transform>Flip command enables you to flip the shape horizontally or vertically.

Understanding...
THE TRANSFORM OPTIONS



Each transformation occurs around a reference point that acts like a pivot. By default, this reference point is always located at the centre of any shape that you select. You can click the appropriate square here **[1]** to change the location of the reference point to pivot the shape from any of the corners, the top, bottom or side, instead of the centre. The X and Y fields **[2]** tell you the horizontal and vertical position of the transformed object's reference point. The W and H fields shown here **[3]** enable you to scale a shape's width and height with precision.

You can click the chain icon **[4]** to constrain the transformed shape's aspect ratio. This field **[5]** enables you to rotate a shape around the reference point by a precise angle. These H and V fields **[6]** enable you to use numerical values to skew a shape horizontally or vertically. Click here **[7]** to activate the Warp transform controls, if necessary. ■



Animation tools

Add motion to your still images and enhance HD video clips with animated, layered special effects

A standard Photoshop document has two dimensions – width and height. In this Tool School we'll show you how to add a third dimension to your Photoshop projects – time. In CS6 and CC, the old Animation panel has been rebranded as the Timeline, which makes it sound more video-friendly. Video-editing packages (such as Premiere Elements) have a timeline that enables users to swap clips around or trim their duration and refine raw footage into slick sequences. Despite the name, the Timeline isn't really up to the task of turning Photoshop into a video-editing package. It's too slow and unwieldy to deal with hours of raw footage. What it does do is enable you to split clips into chunks and add transitions.

If you're serious about editing footage in a conventional way, you'd be much better served by using dedicated non-linear software such as Premiere Elements. Photoshop's Timeline is a closer cousin to the tools in After Effects – a package that enables you to add effects to short clips.

Photoshop's Timeline can add movement to still images in a similar way to a traditional rostrum camera. A rostrum video camera is mounted on a pole and points down at a board. You mount artwork or photos onto the board and then use the rostrum camera's rig to zoom and pan around the image. By recording the camera's moves onto video you can create moving video sequences from still images. Video-editing packages often refer to rostrum-produced zooms and pans as the 'Ken Burns effect', named after a famous rostrum camera practitioner. The Timeline in Photoshop has a series of preset rostrum-style camera moves, such as Rotate & Zoom. This is a big improvement on the Animation panel featured in older versions – that tool only allowed you to pan around a layer by changing its position with the Move tool.

Add action to stills

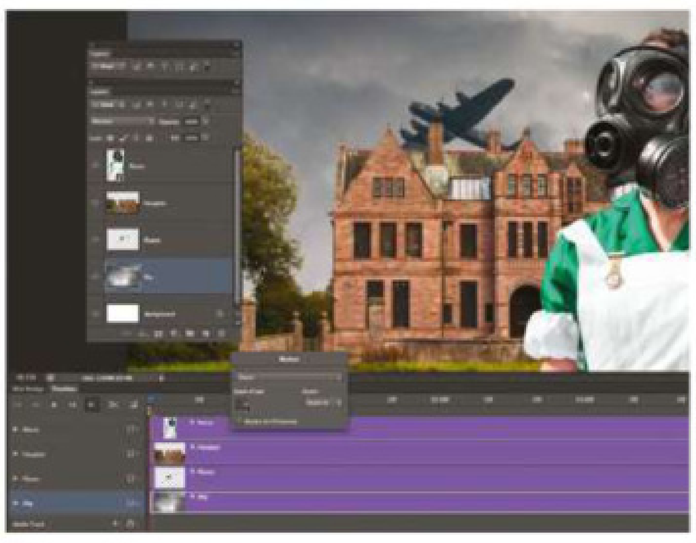
Turn your layers into an animated DVD menu sequence

The Timeline enables you to turn a group of stills into a dramatic animated sequence to act as a background to a DVD menu screen, for example. On this page we'll look at how to prepare stills as a layered document, and then use the Timeline to add a series of animated effects. We'll show you how to use the Timeline's rostrum-style presets to add instant camera moves to a layer, so that the camera can zoom and pan towards a subject such as our wartime nurse. We'll also demonstrate how to move a layer's content by adding keyframes, so that our aircraft can fly in a precise direction. The beauty of the Timeline is that it uses keyframes and tweening. This means that you choose a start position and an end position for a layer's content, and then the Timeline automatically creates all the required frames to make the content move between the two points over a specified range of frames.

For this project we created the image on the left. To create this file we used selection tools to isolate and place the nurse, buildings and aeroplanes on separate layers. In the three steps below we'll show you how we added the movement...

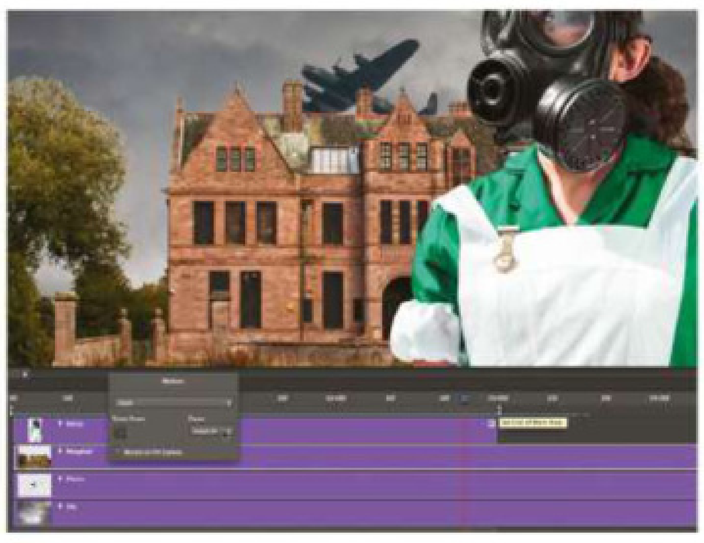


Animate a still image



1 Create a zoom

Open an image with three elements such as above. Go to Window›Timeline. Click Create Video Timeline. Right click a layer and choose Zoom. In the Zoom From section, tick the middle reference point in the right column. Clear Resize to Fill Canvas.



2 Change the duration

Press the space bar. Add the same zoom to the next layer. Drag the end of the first layer so that it finishes at 03.00. Drag the Set End of Work Area bar to the same point. This makes the camera zoom in more quickly on the first layer.



3 Animate another layer

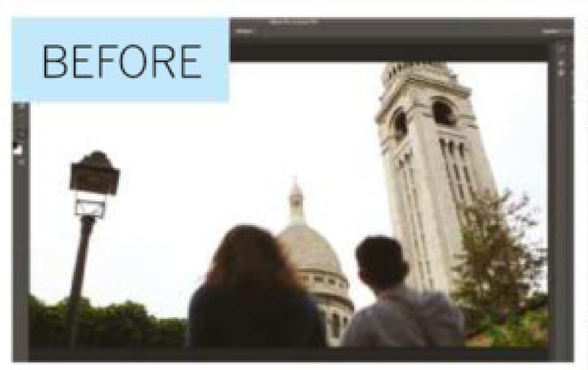
Drag the playhead to frame 1. Select another layer and click the Position attribute's stopwatch icon to add a keyframe. Scrub to frame 03.00 and use the Move tool to drag the third layer. A new Position keyframe will appear.

Video clip special effects

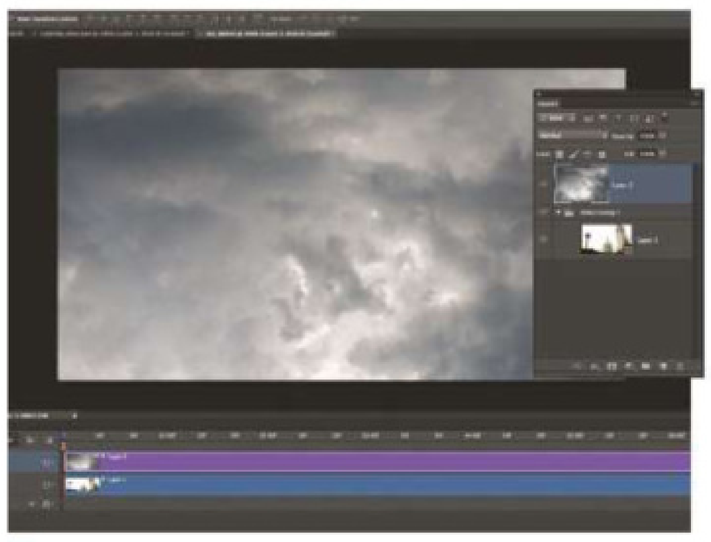
Use the Timeline to add special effects to your video clips such as sky replacements

Once you've used the Timeline's rostrum camera zooms and tweening keyframes to add motion to stills (see our three-step technique on the previous page), you can tap the space bar to preview the animation. This renders a rough preview of each frame into Photoshop's video cache, enabling you to get an idea about the project's movement and pacing. If you make any changes to a layer's animation you'll need to re-render the preview with another tap of the space bar. To see a smoother flowing, high-quality version of your animation, you'll need to render the project as a movie. Check out our Understanding Video Rendering box on the following page for more information on how to export your Timeline-produced animations.

As well as turning stills into video, you can use the Timeline and its image-editing tools to augment existing footage with a variety of special effects, such as replacing a dull sky with something more dramatic. You can also animate a Levels adjustment layer to change the video's lighting, enabling you to add flashes of lightning to your new sky, for instance...

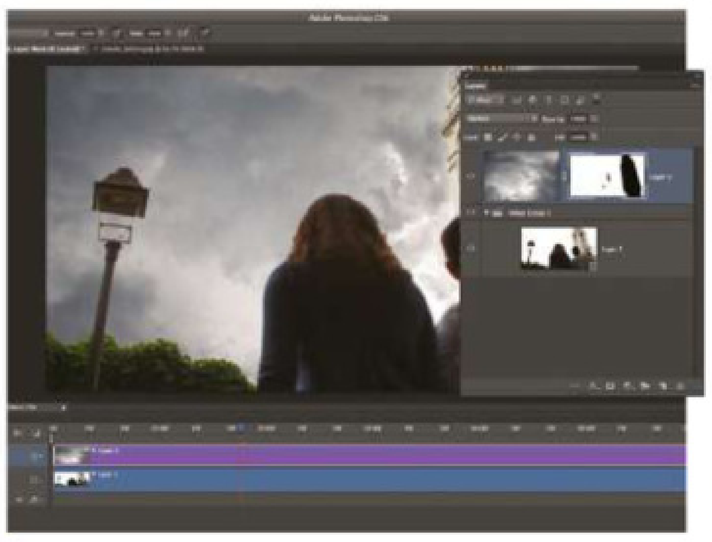


Video sky replacement



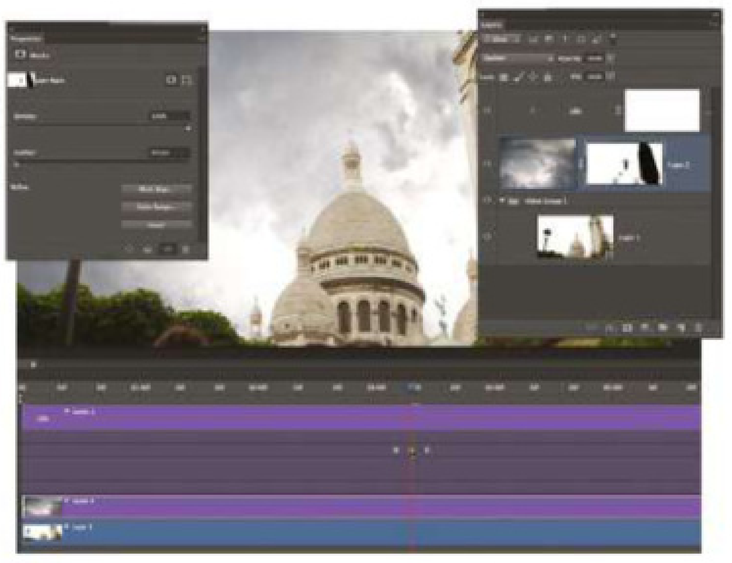
1 Organise the layers

Open a video clip containing a sky. Open a photo of some clouds. Choose Select›All and then Edit›Copy. Edit›Paste the clouds into the document. In the Layers panel and the Timeline, drag 'Layer 2' above 'Video Group 1'.



2 Blend and mask

Place the clouds over the background video. Set the cloud layer's Blend mode to Darken. This causes the clouds to replace the lighter sky on the layer below. Add a layer mask to the cloud layer and hide clouds that cover the detail in the video.

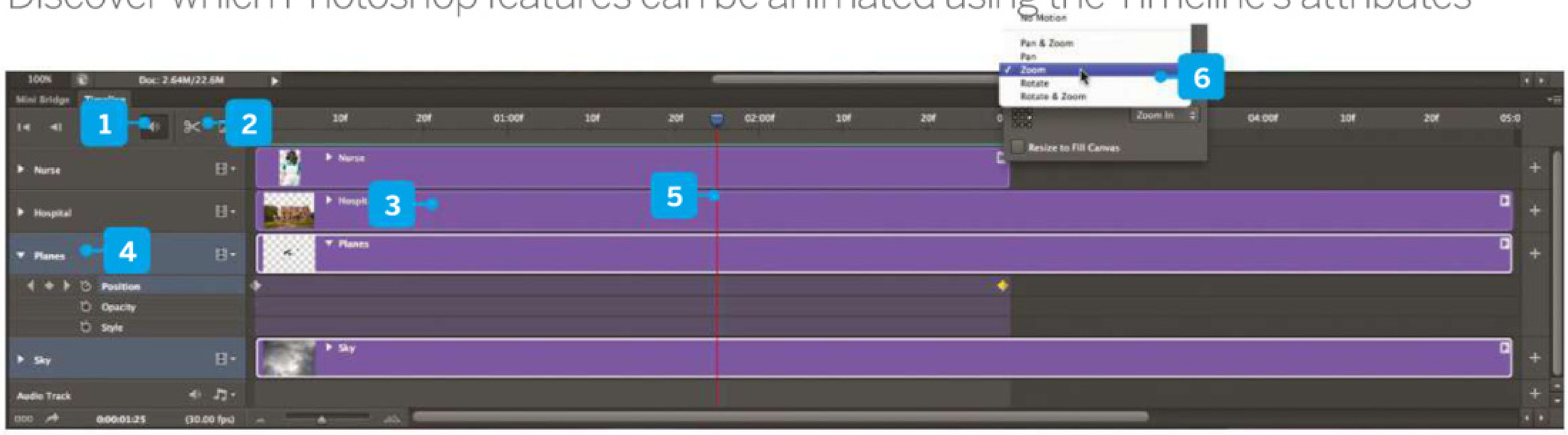


3 Add the lightning flash

Add a Levels adjustment layer. Set the white slider to 219. Set Opacity to 0%. Open the Levels layer and scrub to halfway through the video. Add a keyframe. Move the playhead again. Set Opacity to 100%. Scrub forward and then reduce opacity back to 0%.

Photoshop Anatomy Timeline options

Discover which Photoshop features can be animated using the Timeline's attributes



1 TIMELINE

The Timeline panel automatically opens when you import a video clip. To animate image layers, summon the Timeline via the Window menu.

2 CUTS AND TRANSITIONS

The Timeline enables you to split a clip at the playhead by clicking here. You can also use the adjacent icon to add a video transition (such as a cross fade).

3 WORK AREA

Two adjustable grey sliders enable you to define the start and end points of your animated video sequence.

4 EDITABLE ATTRIBUTES

Toggle this arrow to access the layer's editable attributes. You can animate a layer's position, opacity and any Layer Styles that have been added.

5 PLAYHEAD

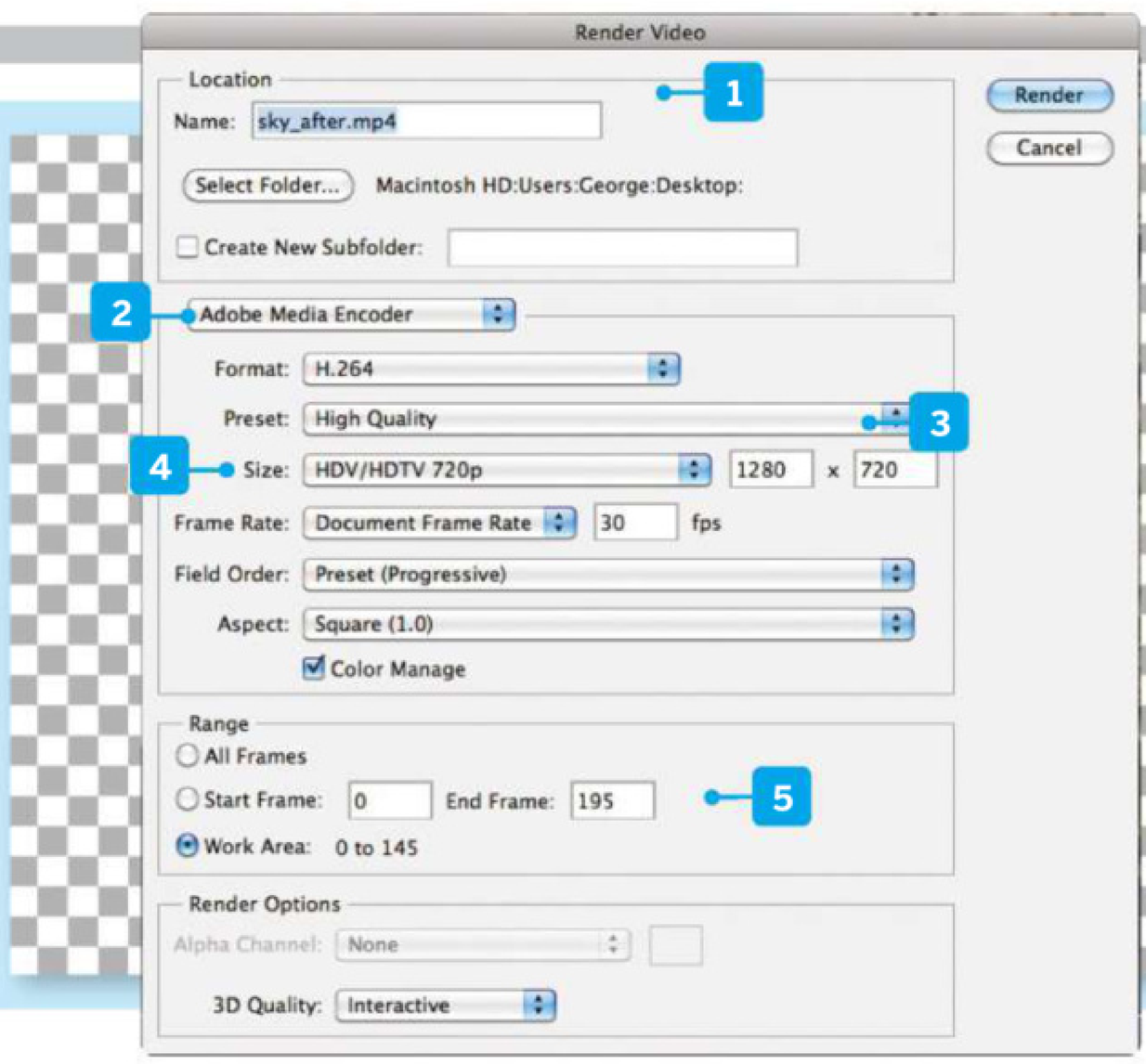
Drag the playhead back and forth to preview a frame. Tap the space bar to play the video. The green bar below the playhead indicates rendered frames.

6 MOTION

Clicking this arrow opens the Motion panel. Here you can choose a preset move such as Rotate & Zoom, and apply it to a layer's content.

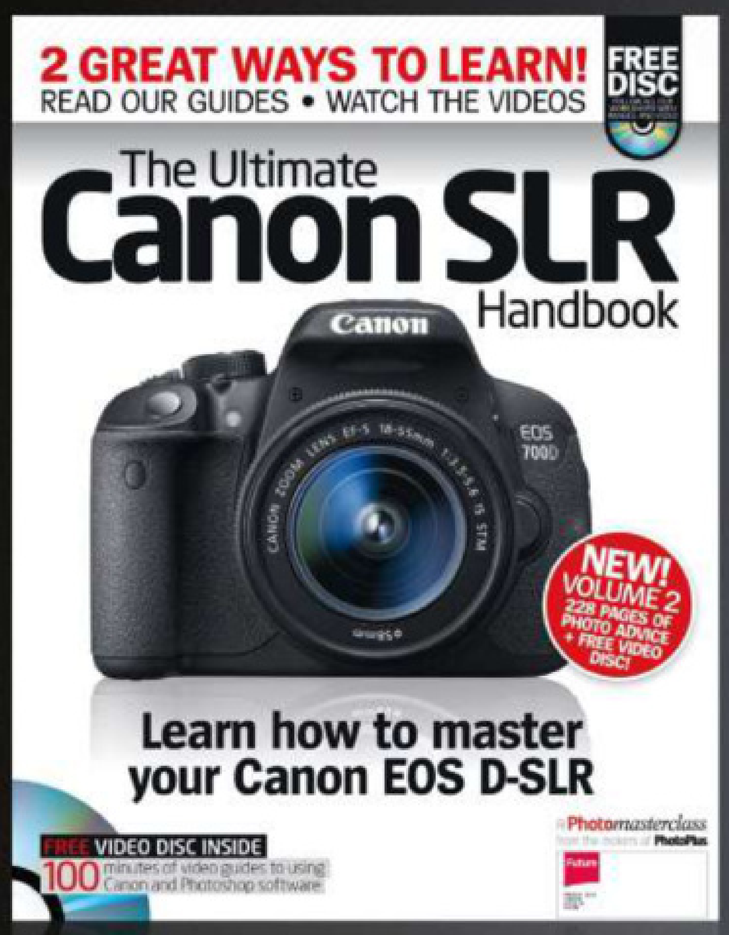
Understanding... VIDEO RENDERING

When you watch a preview of your animated project in Photoshop, it looks fuzzy and low-resolution. To see a high-quality version, go to File>Export> Render Video. The Render Video window will appear **[1]**. Choose a Format from this drop-down menu **[2]**. H.264 enables you to produce high-definition videos that don't use lots of disc space. The Preset drop-down **[3]** has a wide range of output formats, including YouTube-friendly options. Size **[4]** enables you to choose an aspect ratio such as HDV/HDTV 720p, enabling the clip to play as HD footage. You can render the entire work area, or choose a range of frames from here **[5]**. You'll probably want to use All Frames. ■



LEARN NEW SLR SKILLS!

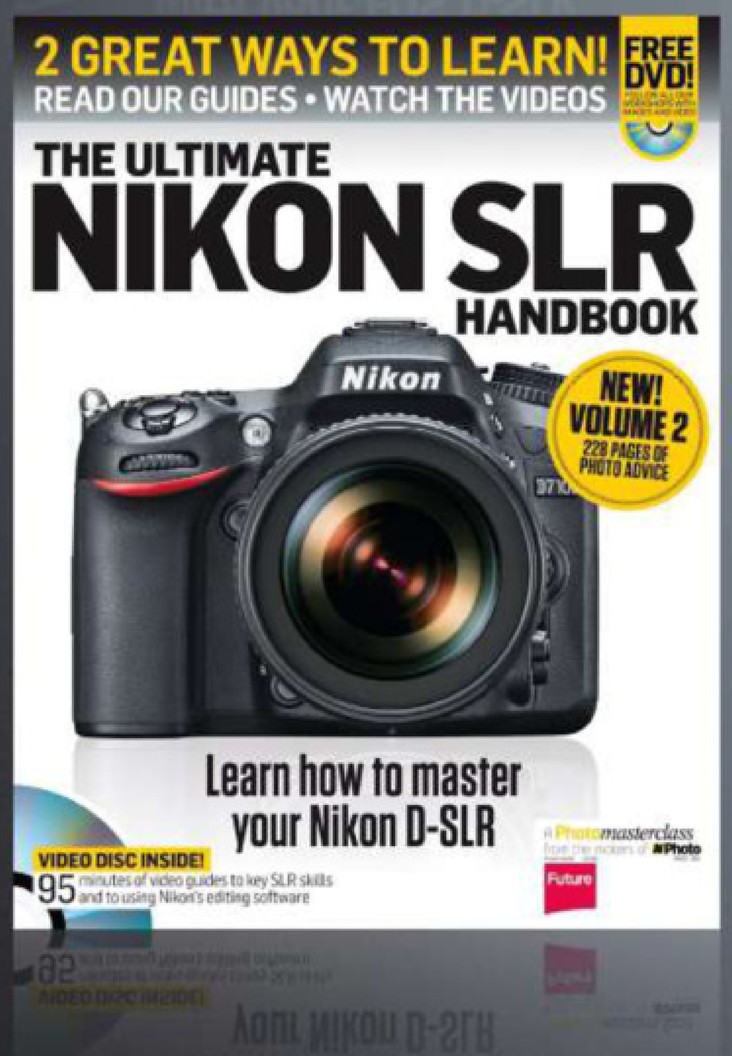
Become an expert with our 228-page Photo Masterclass guides













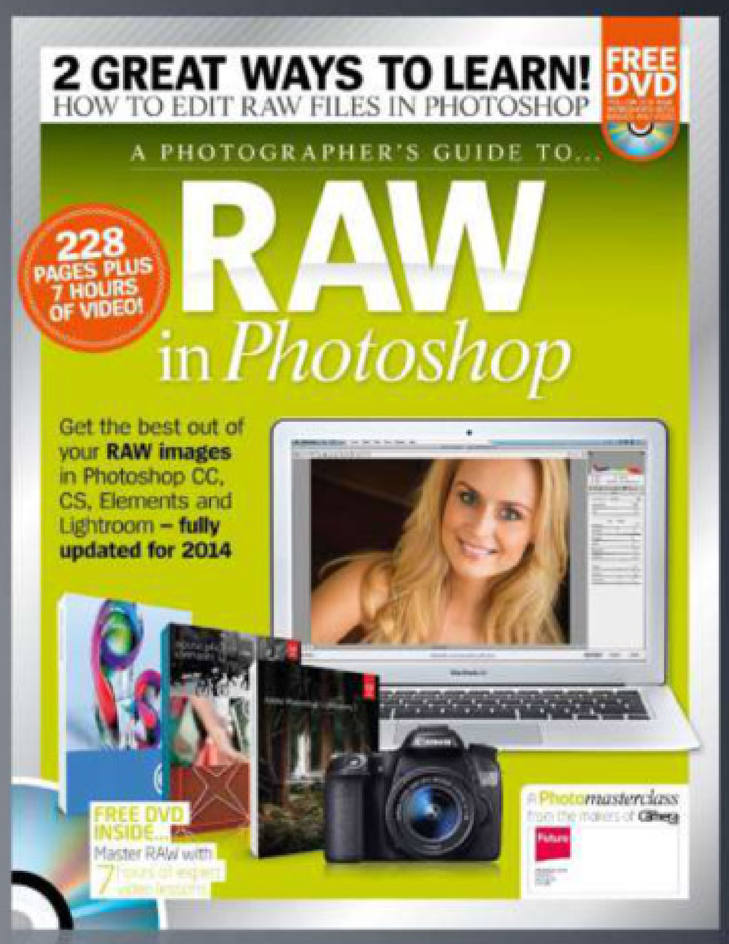
Order our bookazines direct at

www.myfavouritemagazines.co.uk/photo

MASTER PHOTOSHOP!

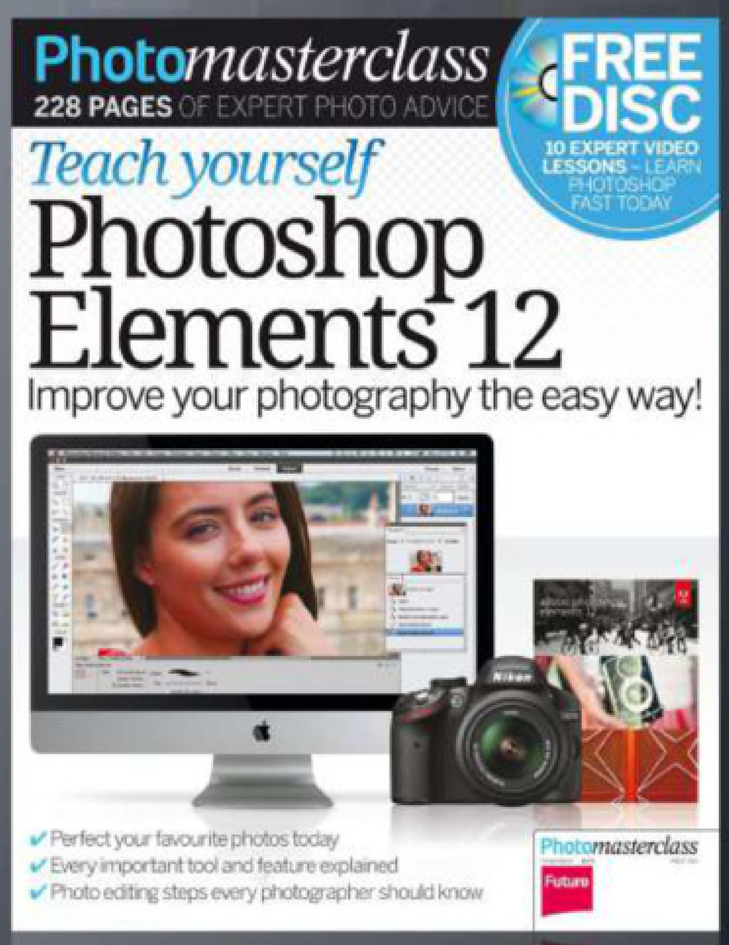
Our bookazines will make you a better photographer!

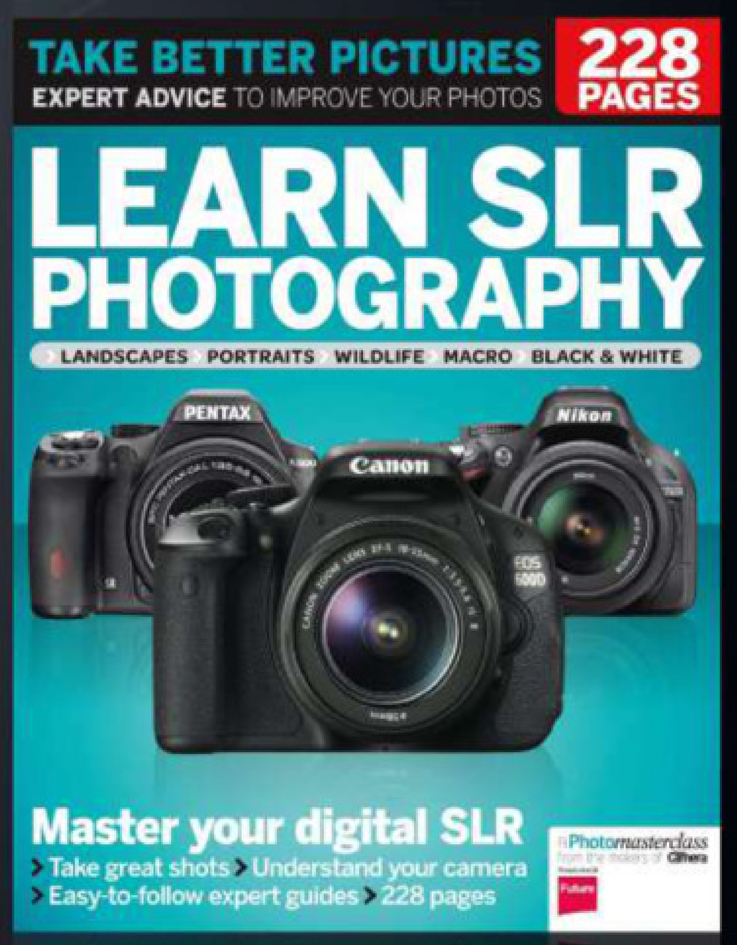












iPad and iPhone editions can be bought through the free Digital Camera app

Download it for your iPhone or iPad via iTunes at http://goo.gl/FUVam